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ABSTRACT

This report is the last in a three phase series which had as its major objective the development of a comprehensive state plan to meet the manpower needs of Arkansas' approximately 58,000 mentally retarded in the health, health related, and adaptive behavioral problem service areas. Phase I of the series attempted to determine the number of professional and semi-professional personnel needed to provide the services necessary for optimum care; Phase II analyzed the potential of institutions of higher learning in Arkansas to prepare these personnel. Phase III establishes proposals to expand existing programs and to create new ones. Suggestions were derived from plans classified as "not adequate" or "not existing" in the Phase II report. Because of limited financial resources the needed projects were classified in four priority levels: "most urgent", "urgent", "intermedially urgent", and "least urgent". Appendix A lists the consultants and committee members; Appendix B contains the inventories and questionnaires distributed to institutions of higher learning in the state. (AF)

ED038352

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ED038926

# A PLAN FOR MEETING PERSONNEL NEEDS IN THE HEALTH, HEALTH RELATED AND ADAPTIVE BEHAVIORAL PROBLEM SERVICE AREAS IN ARKANSAS

## Report of Phase III:

## MANPOWER PROJECT: HEALTH AND RELATED SERVICES

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This project has been funded in part by the Mental Retardation Branch of the U. S. Public Health Service.

# FOREWORD

This document is a report on the third phase of the Manpower Project: Health and Related Services, for which the Commission on Coordination of Higher Educational Finance was granted administrative responsibility by the United States Department of Health, Education, and Welfare. The project was funded in part by the Mental Retardation Branch of the United States Public Health Service.

This report represents a coordinated effort on the part of the Commission on Coordination of Higher Educational Finance, public and private institutions of higher learning, various State agencies, professional associations, and private individuals in Arkansas to develop a state plan for meeting manpower needs in the health, health related, and adaptive behavioral problem service areas in Arkansas.

The Commission on Coordination of Higher Educational Finance and the project staff recognize and express appreciation for the invaluable contributions made by each of the following: Administrative officials and faculty of all public and private institutions of higher learning in Arkansas, who participated in the project: Arkansas Children's Colony, Arkansas School for the Blind, Arkansas School for the Deaf, Arkansas State Educational Department (Rehabilitation Service and Rehabilitation Services for the Blind), Arkansas State Health Department, Arkansas Training Schools, Arkansas Tuberculosis Sanatorium, Arkansas Dental Association, Arkansas Dental Assistants Association, Arkansas Dental Hygienists Association. Arkansas Hospital Association, Arkansas Medical Association, Arkansas Occupational Therapists Association, Arkansas Optometrists Association, Inc., Arkansas Pharmacists Association, Arkansas Physical Therapists Association, Arkansas State Board of Nursing, and persons involved in the private sector of the health service areas.

This report was prepared for use by all persons concerned with health personnel and in the development of plans for programs in the institutions of higher education to educate the health and related personnel needed in the State.

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# CHAPTER I

## HISTORY AND OBJECTIVES OF THE STUDY

Arkansas' Manpower Project for Health and Related Services evolved from the "Mental Retardation Planning Project" for the state of Arkansas which began July 1, 1964. The Arkansas State Board of Health was designated as the administrative agency for the total project which would have as its major objective the development of a comprehensive state plan to meet the needs of Arkansas' approximately 58,000 mentally retarded.

As part of the planning effort, subcommittees on manpower and education were appointed to study in depth the State's needs in these areas. These committees quickly became aware of, and pointed out repeatedly, that the major problem in Arkansas was the lack of an adequate number of professionally trained specialists. As planning proceeded, it became apparent that parallel to the acute shortage of trained personnel there existed a very limited number of training programs and resources within the State. In addition, not one university or college was currently planning to provide training for all the various disciplines involved, or even the major disciplines. Further, it was recognized that any program to meet the State's needs would require the cooperative support and effort of (1) the State's institutions of higher learning; (2) the agencies within the State needing professional staff to provide services to the retarded; and (3) the professional organizations and societies.

Based on the recommendation of these committees, the Arkansas Workshop to Coordinate Planning for Training of Professional Personnel was held November 21-23, 1965. The Workshop was planned and conducted jointly by the Arkansas State Board of Health, Mental Retardation Planning staff; State Department of Education, Special Education Division; Arkansas Rehabilitation Research and Training Center; and the Commission on Coordination of Higher Educational Finance.

The four areas of emphasis were:

1. Challenge to higher education and national trends in professional training.
2. Arkansas' needs for trained personnel and training programs.
3. Financial requirements and resources related to these needs.
4. Organization and coordination for implementing plans to supply manpower needs.

Invitations were extended to 119 staff members of the 25 institutions of higher learning, state service agencies, public school personnel, and professional persons in private practice. Participants represented the professional specialties of education, behavioral sciences, medicine, and vocational rehabilitation.

The State's major needs were summarized by the Workshop group as follows:

## A. PERSONNEL

It was reliably established that virtually all professional categories in the health related fields were short of trained, competent personnel. It was also further agreed that training, either preservice or in-service, could probably be done most effectively by the academic institutions, second, by service agencies, and third, by professional associations or societies. Recognizing that the colleges and universities must continue as the primary setting for professional training, it was emphasized that the nature of the problem of mental retardation and the current trends in such training indicate a need for cooperative, combined utilization of all three of these resources. This was viewed as being true of all aspects of the health field, prevention, detection, diagnosis and treatment, as well as the necessary follow-up to maintain recent gains.

To illustrate the need in Arkansas it was pointed out that Arkansas stands 35th in the nation in the number of physicians in relation to population. It was estimated that the State needed an additional 500 physicians to provide for the minimal health needs of its people and that, in addition, Arkansas stands 50th in the nation in the number of nurses in relation to population. (Surgeon General's Report, 1963)

When the related health needs in Arkansas were considered, the picture was about the same. For example, there existed a need for 2,000 teachers to meet the special education void in the State.

There was not an agency in the State, working with handicapped children, which had personnel to meet *current program demands* for specialized people. In spite of a few relatively bright spots the expansion of programs following federal and state legislation created needs which far outstripped the meager gains in a few areas.

It was further recognized that those persons who are State residents and who receive training in Arkansas tend to remain in the State. This was established as another important factor in the justification for broadening training programs within the State boundaries.

## B. PROGRAMS

The various representatives of the institutions and agencies stressed the need for multidisciplinary and interdisciplinary training programs, and the need for coordination of such programs if Arkansas expected to meet the present and expanding demands for trained, competent personnel.

The Workshop participants examined the program needs in terms of four major categories:

(1) education, (2) behavioral sciences, (3) medical, and (4) vocational. The needs under each category were summarized as follows:

1. Education:
   a. Coordination of the planning of the colleges to assure the best use of their resources.
   b. Development of new programs to fill existing gaps in the stimulation and training of professional personnel, and the auxiliary and technical groups.
   c. Development of specialized programs to prepart teachers to work with the retarded and other handicapped children.

2. Behavioral Sciences:
   a. Expansion and further strengthening of the programs in the various psychological specialties, at both graduate and undergraduate levels.
   b. Coordination of efforts of the institutions of higher learning as such expansion is planned.
   c. Implementation of the School of Social Work as authorized by the 1965 Legislature.
   d. Expansion of sub-degree training programs in the various agencies, in conjunction and coordinated with the educational programs of the institutions of higher learning.

3. Medical:
   a. Better planning for more efficient uilization of state funds, facilities, and professional personnel.
   b. Professional personnel for training programs.
   c. Comprehensive diagnostic and evaluation centers to serve a two-fold purpose: (1) identification and diagnosis, and referral of children with handicapping conditions, and (2) training of professional personnel.
   d. Additional space and new facilities for training purposes.
   e. Establishment of a dental research and training center.
   f. Expansion of the School of Nursing program to include more preparation in the care of the mentally retarded and those with other handicapping conditions.

   g. Establishment of a Department of Physical Medicine with a training program for therapists to work with the handicapped.

   h. Establishment of centers for the training of technicians in virtually all health and health related fields.

4. Vocational:

   a. Coordinative planning of training programs and facilities to insure maximum benefits from funds invested in both training and facilities in the years ahead.

   b. Expansion of existing programs and development of new programs to train professional personnel for nine job classifications within the area of rehabilitation of the handicapped.

   c. Establishment of training facilities.

The major general recommendations were:

1. A Planning Committee to continue a coordinated effort to implement plans for further study of the problems involved in training of professional specialists. This Committee to be charged with the responsibility of developing an application for a stimulation grant to support the employment of a full-time professional person to develop and implement a statewide, coordinated program among the institutions of higher learning within the State for the training of professional and sub-professional personnel to serve the needs of the handicapped children.

   It was further recommended that this Committee be as representative as possible of State agencies, institutions, and appropriate professional organizations. (See Appendix A for a complete list of committees and committee members)

2. It was unanimously recommended by the Workshop participants and the appointed Advisory Committee that the planning grant be administered by the Commission on Coordination of Higher Educational Finance.

   It was pointed out that the Arkansas' Commission on Coordination of Higher Educational Finance was designed to serve in an advisory capacity to the state colleges and universities on matters pertaining to financial operations and capital improvements, and further that the Commission's activities in the coordination of financial operations had been accepted enthusiastically by the institutions of higher learning in the State. In view of the fact that the implementation of the results of this planning project would necessarily involve the Commission both in terms of finances for operation and capital improvements; and in view of the close working relationship which the Commission maintained with various State agencies, the Commission accepted the responsibility for administering the proposed planning project.

The specific objectives of the planning project outlined by the Workshop representatives were:

1. To assist individual institutions of higher education in Arkansas in the establishment and development of interdisciplinary and multidisciplinary training programs in the field of mental retardation and related areas.

2. To assist in planning and implementing statewide coordination of training programs among the State's 25 institutions of higher education and service agencies.

3. To develop a system for determining continuing needs of service agencies for trained personnel and relating these needs to training programs.

## METHOD OF PROCEDURE

The Workshop participants recommended that the achievement of the specific objectives should be obtained by well-planned interrelated steps and suggested that the project be divided into the following three phases:

| | |
|---|---|
| PHASE I | Initiation of Project<br>Determining Specific Manpower Needs |
| PHASE II | Developmental Planning<br>Determining Resources for Manpower Training |
| PHASE III | Development Planning and Implementation<br>Completion of Statewide Plan |

The initial step in the establishment of the statewide planning project was the selection of a coordinator who was assigned the responsibility of directing the program. The Coordinator was selected by the Executive Director of the Commission on Coordination of Higher Educational Finance after consultation with the Mental Retardation Branch, Division of Chronic Diseases, U. S. Department of Health, Education, and Welfare, and the Advisory Committee. The Coordinator and staff were placed under the administrative responsibility of the Executive Director of the Commission on Coordination of Higher Educational Finance. During the same period the various study committees were also formulated. These committees were:

The Advisory Committee: The membership of the Advisory Committee was composed of professional persons who were appointed by the colleges and universities, state service agencies, professional groups, and related organizations. These appointments were made at the request of the Commission on Coordination of Higher Educational Finance. This Committee served in an advisory capacity to the Project Coordinator. The Coordinator and staff were requested to review with the Committee all reports and recommendations and utilize its members in implementing plans. The Committee held regular meetings each quarter with the Project Coordinator.

Liaison Committee: Each service agency, college or organization involved in project planning activities was requested by the Executive Director of the Commission on Coordination of Higher Educational Finance to designate a key agency representative to serve as a liaison person with the project staff in planning activities involving its specific organization. It was their responsibility to coordinate intra-organizational staff participation in determining needs and program plans. Staff time spent in such representation was contributed by the participating agency.

Dr. Wayne B. Fisher served as director of the study during Phases I and II. Dr. Fisher and his staff published both the Phase I report, Personnel Needs in the Health and Adaptive Behavioral Problem Service Areas in Arkansas, and the Phase II report, A Study of the Potentials of the Institutions of Higher Education in Arkansas to Prepare Personnel for the Health and Related Professions. The review of Phases I and II, presented in Chapter II of this report, is composed of material which was originally published in the preceding reports. Dr. Fisher resigned as director of the study effective January 1, 1969 and the Commission on Coordination of Higher Educational Finance appointed Dr. James T. Sparkman to the position effective as of that date.

# CHAPTER II

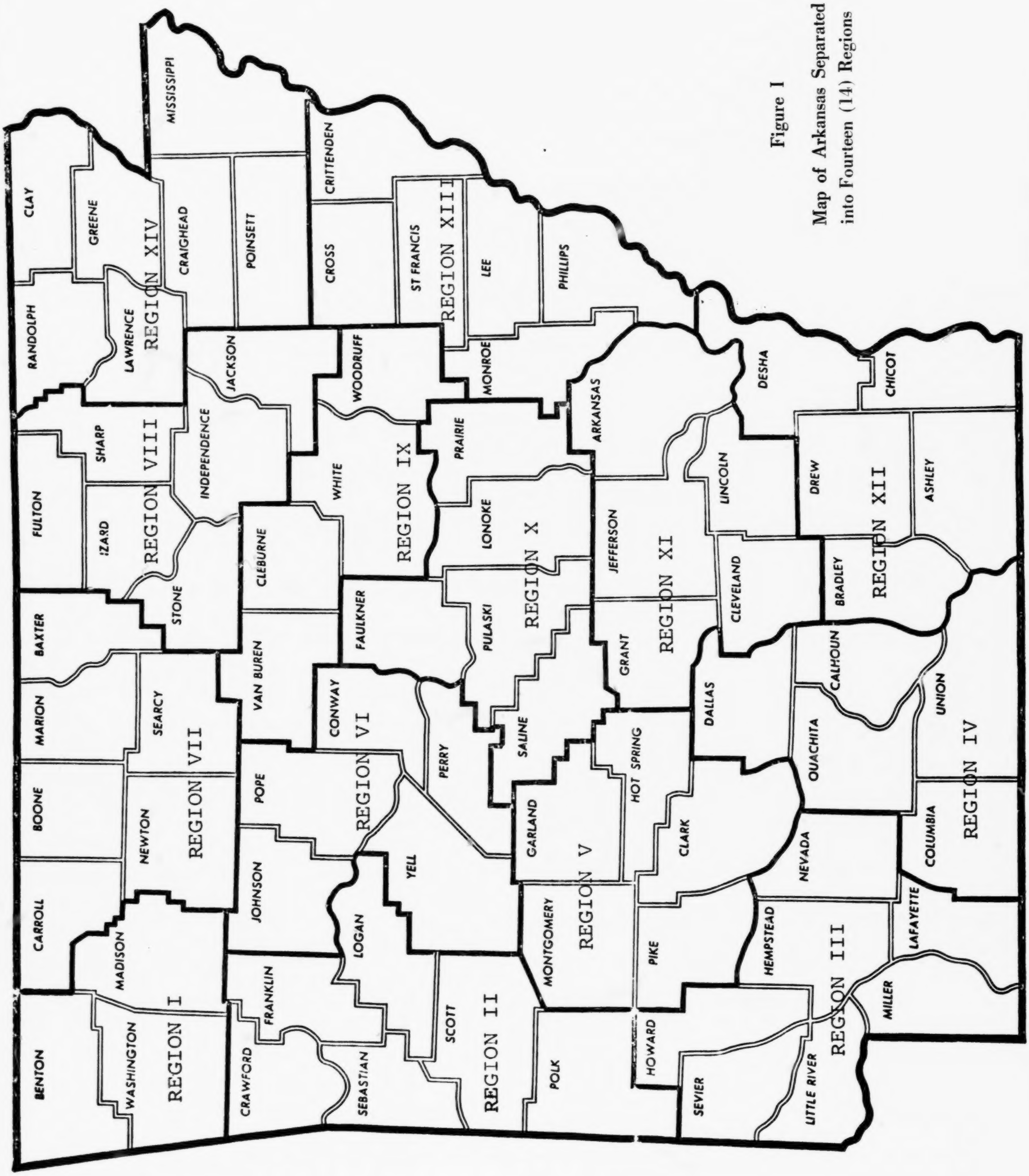
# A REVIEW OF PREVIOUS PHASES OF THE STUDY

## REVIEW OF PHASE I

Phase I was designed to determine the number of professional and semi-professional personnel needed to render the services deemed necessary for optimum care of that portion of the Arkansas population having health and/or adaptive behavioral problems. The report identified by region the number of persons needed for service in each of the health professions. (See Figure I) The Phase I report limited its treatment of direct contact personnel needs to the health and/or adaptive behavioral problem service areas.

The data were presented in a manner which reflected the immediate and projected needs by five year intervals to 1977. This was done in order to establish a foundation to be used as a guide in the development of educational programs necessary to prepare the personnel needed in the State. The findings of Phase I were organized in such a way that the various governmental groups in the State might have an opportunity to utilize the data as a source of reference in their efforts to assist the State in decreasing the personnel deficit in health and/or adaptive behavioral problem service areas and to provide the appropriate level of financing for various programs.

"The Desired Educational Standards", established by the Liaison Committee, where the criteria used as a guide in determining personnel needs and to categorize these needs according to desired educational levels. These standards were established with the understanding that they were to be used to categorize personnel needs and for developing programs to meet the identified needs. These standards did not necessarily reflect current nor proposed specifications for establishing certification of employment practices within the State agencies.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REGION XIII
REGION XIV
BENTON
WASHINGTON
CRAWFORD
SEBASTIAN
SCOTT
POLK
HOWARD
SEVIER
LITTLE RIVER
MILLER
LAFAYETTE
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MONROE
PHILLIPS
LEE
BAXTER
STONE
VAN BUREN
FAULKNER
CLEBURNE
WHITE
WOODRUFF
ST FRANCIS
CROSS
CRITTENDEN
FULTON
IZARD
INDEPENDENCE
JACKSON
SHARP
RANDOLPH
LAWRENCE
CLAY
GREENE
CRAIGHEAD
POINSETT
MISSISSIPPI

Figure I

Map of Arkansas Separated into Fourteen (14) Regions

National averages were used to determine present and projected needs for personnel in many of the private practice health areas. This was done by applying current national averages for the appropriate personnel to the present and projected population estimates for the State. In some instances current supply exceeded the calculated number of personnel needed to meet the national average. In those cases it was assumed that those available in the particular areas were not in excess, but only provided a higher level of health personnel to the population of the area. It was pointed out in the Phase I report that by using national averages to establish needs, the study did not necessarily establish the most desirable level of availability of personnel since the average number of professional personnel in the United States is considered to be well below the desired optimum in many professional areas.

The needs for personnel in the State were presented in detailed tabular form in the Phase I report. These needs were also summarized in the report and the tabular summary, which provides most of the basic needs data for the Phase III report, has been reproduced in Tables I, II, III, IV, V, and VI.

## REVIEW OF PHASE II

The Phase II report, A Study of the Potentials of the Institutions of Higher Education in Arkansas to Prepare Personnel for the Health and Related Professions, presented an analysis of the production potential of the institutions of higher education in Arkansas.

During the early activities of the project, the president of each institution of higher learning was requested to appoint a liaison person to represent that institution in the collection of data and the development of proposals which would lead to accomplishment of the overall objectives of the project. This group of institutional representatives became the Liaison Committee for the remaining phases of the study. The liaison group cooperated with the project staff in collecting data particularly with reference to the second phase. The liaison group was also active in developing the inventories used in collecting these data. Each liaison member who deemed it feasible established a campus group to assist him and the project staff in collecting the desired information. The information and data included in the Phase II report were made possible through the cooperative efforts of the liaison person and the on-campus groups .

## TABLE I

## SUMMARY OF IMMEDIATE, PROJECTED AND TEN-YEAR ACCUMULATED NEEDS FOR PERSONNEL WITH SUGGESTED DOCTORAL DEGREES

| Level and Area of Education | Immediate Needs 1967 | Add'l. Needs by 1972 | Add'l. Needs by 1977 Above 1972 | Accumulated State Needs by 1977 |
|---|---|---|---|---|
| Dental Surgery | | | | |
| General* | 262 | 104 | 98 | 464 |
| Specialties | 13 | 5 | 2 | 20 |
| Medicine | | | | |
| General Practice | 121 | 97 | 71 | 289 |
| Internal Medicine | 183 | 24 | 19 | 226 |
| General Surgery | 73 | 21 | 19 | 113 |
| Obstetrics-Gynecology | 58 | 6 | 7 | 71 |
| Pediatrics | 80 | 20 | 16 | 116 |
| Psychiatry | 133 | 52 | 65 | 250 |
| Radiology | 34 | 7 | 3 | 44 |
| Anesthesiology | 37 | 4 | 2 | 43 |
| Ophthalmology | 63 | 8 | 7 | 78 |
| Otolaryngology | 19 | 8 | 7 | 34 |
| Other Specialties | 111 | 43 | 35 | 189 |
| Total | 912 | 290 | 251 | 1453 |
| Education | | | | |
| Educational Psychology | 1 | 1 | 1 | 3 |
| Philosophy | | | | |
| Clinical Psychology | 2 | 2 | 3 | 7 |
| General Psychology | 13 | 8 | 6 | 27 |
| Speech Pathology | 8 | 7 | 0 | 15 |
| Total | 23 | 17 | 9 | 49 |
| Optometry | 28 | 6 | 7 | 41 |

*The General Dentistry figure includes the numbers of specialists

## TABLE II

## SUMMARY OF IMMEDIATE, PROJECTED AND TEN-YEAR ACCUMULATED NEEDS FOR PERSONNEL WITH SUGGESTED SPECIALIST DEGREES

| Level and Area of Education | Immediate Needs 1967 | Add'l. Needs by 1972 | Add'l. Needs by 1977 Above 1972 | Accumulated State Needs by 1977 |
|---|---|---|---|---|
| Education | | | | |
| Admin. & Supv. | 25 | 8 | 13 | 46 |
| Curriculum & Instruct. | 195 | 63 | 38 | 296 |
| Guidance & Counseling | 5 | 2 | 2 | 9 |
| Educational Psychology | 64 | 39 | 10 | 113 |
| Total | 289 | 112 | 63 | 464 |
| Pharmacy | 278 | 237 | 151 | 666 |

## TABLE III

## SUMMARY OF IMMEDIATE, PROJECTED AND TEN-YEAR ACCUMULATED NEEDS FOR PERSONNEL WITH SUGGESTED MASTER'S DEGREES

| Level and Area of Education | Immediate Needs 1967 | Add'l. Needs by 1972 | Add'l. Needs by 1977 Above 1972 | State Needs Accumulated by 1977 |
|---|---|---|---|---|
| Audiology | 6 | 7 | 4 | 17 |
| Business Administration | 4 | 4 | 4 | 12 |
| Chemistry | 2 | 2 | 0 | 4 |
| Education | | | | |
| Administration & Supv. | 4 | 7 | 6 | 17 |
| Curriculum & Instruct. | 198 | 111 | 84 | 393 |
| For the Blind | 20 | 2 | 3 | 25 |
| For the Deaf | 1 | 10 | 10 | 21 |
| For the E.M.R. | 720 | 60 | 45 | 825 |
| For the T.M.R. | 189 | 62 | 44 | 295 |
| For the Physically Hand. | 446 | 38 | 24 | 508 |
| For the Part. Blind | 134 | 9 | 8 | 151 |
| For the Part. Deaf | 455 | 31 | 14 | 500 |
| For Learning Disabilities (Emotional, etc.) | 1129 | 81 | 62 | 1272 |
| Psychology | 11 | 6 | 6 | 23 |
| Guidance & Counseling | 642 | 634 | 510 | 1786 |
| Physical Education | 3 | 2 | 4 | 9 |
| Speech (Correction) | 22 | 20 | 4 | 46 |
| Library Science | 9 | 8 | 6 | 23 |
| Nutrition | 10 | 12 | 12 | 34 |
| Kindergarten (For M.R.) | 368 | 410 | 105 | 883 |
| Total | 4361 | 1503 | 947 | 6811 |
| Hospital Administration | 0 | 0 | 0 | 0 |
| Industrial Arts | 23 | 5 | 5 | 33 |
| Microbiology | 19 | 10 | 0 | 29 |
| Nursing | 27 | 13 | 16 | 56 |
| Psychology | 47 | 48 | 51 | 146 |
| Public Health | 21 | 24 | 20 | 65 |
| Recreational Therapy | 3 | 1 | 2 | 6 |
| Rehabilitation Counseling | 163 | 52 | 52 | 267 |
| Sanitary Engineering | 8 | 5 | 6 | 19 |
| Social Work* | 13 | 6 | 6 | 25 |
| Social Work | 598 | 153 | 106 | 857 |
| Other | 3 | 5 | 4 | 12 |

*It was requested that additional specialized work in the appropriate field beyond the Master's be included.

## TABLE IV

## SUMMARY OF IMMEDIATE, PROJECTED AND TEN-YEAR ACCUMULATED NEEDS FOR PERSONNEL WITH SUGGESTED BACHELOR'S DEGREES

| Level and Area of Education | Immediate Needs 1967 | Add'l. Needs by 1972 | Add'l. Needs by 1977 Above 1972 | Accumulated State Needs by 1977 |
|---|---|---|---|---|
| Arts & Crafts | 9 | 43 | 52 | 104 |
| Biochemistry | 2 | 2 | 2 | 6 |
| Biological Science | 2 | 1 | 1 | 4 |
| Business Administration | 26 | 14 | 7 | 47 |
| Chemistry | 7 | 4 | 4 | 15 |
| Cyto-Technology | 4 | 1 | 1 | 6 |
| Education | | | | |
| Pre-Guidance & Counseling | 4 | 5 | 5 | 14 |
| Physical Education | 8 | 4 | 4 | 16 |
| Psychology | 11 | 10 | 10 | 31 |
| Special Education | 389 | 41 | 34 | 464 |
| Vocational Education Industrial Arts | 2 | 1 | 1 | 4 |
| Total | 434 | 70 | 64 | 568 |
| Laboratory Technology | 5 | 5 | 0 | 10 |
| Medical Records Science | 154 | 79 | 5 | 238 |
| Medical Technology | 131 | 214 | 9 | 354 |
| Microbiology | 5 | 5 | 0 | 10 |
| Nursing | 1092 | 377 | 115 | 1584 |
| Nutrition-Dietetics | 177 | 127 | 40 | 344 |
| Occupational Therapy | 63 | 43 | 16 | 122 |
| Physical Therapy | 103 | 82 | 8 | 193 |
| Psychology | 6 | 10 | 10 | 26 |
| Recreational Therapy | 186 | 96 | 24 | 306 |
| Sanitary Engineering | 81 | 38 | 45 | 164 |
| Social Work | 547 | 116 | 120 | 783 |
| Sociology | 0 | 5 | 5 | 10 |

## TABLE V

## SUMMARY OF IMMEDIATE, PROJECTED AND TEN-YEAR ACCUMULATED NEEDS FOR PERSONNEL WITH SUGGESTED ASSOCIATE DEGREES

| Level and Area of Education | Immediate Needs 1967 | Add'l. Needs by 1972 | Add'l. Needs by 1977 Above 1972 | Accumulated State Needs by 1977 |
|---|---|---|---|---|
| Dental Hygiene | 131 | 17 | 14 | 162 |
| General Education | | | | |
| Associate Teaching | 0 | 84 | 47 | 131 |
| Institutional Teaching | 15 | 5 | 7 | 27 |
| Laboratory Assistants | 8 | 42 | 7 | 57 |
| Library Assistants | 5 | 7 | 7 | 19 |
| Total | 28 | 138 | 68 | 234 |
| Nursing | | | | |
| Associate | 467 | 820 | 109 | 1396 |
| Diploma | 409 | 574 | 0 | 983 |
| Assistant | 2 | 1 | 1 | 4 |
| Total | 878 | 1395 | 110 | 2383 |
| Medical Records Science | 94 | 44 | 0 | 138 |

## TABLE VI

## SUMMARY OF IMMEDIATE, PROJECTED AND TEN-YEAR ACCUMULATED NEEDS FOR PERSONNEL WITH SUGGESTED VOCATIONAL COURSES BEYOND THE HIGH SCHOOL LEVEL

| Level and Area of Education | Immediate Needs 1967 | Add'l. Needs by 1972 | Add'l. Needs by 1977 Above 1972 | Accumulated State Needs by 1977 |
|---|---|---|---|---|
| General | | | | |
| Attendants | 476 | 232 | 387 | 1095 |
| Dental Assistants | 670 | 61 | 48 | 779 |
| Dietary | 22 | 32 | 4 | 58 |
| Library Aides | 4 | 4 | 4 | 12 |
| Psychiatric Technicians | 366 | 119 | 119 | 604 |
| Therapists & Assistants | 150 | 123 | 22 | 295 |
| Total | 1688 | 571 | 584 | 2843 |
| Laboratory | | | | |
| Assistants & Aides | 44 | 78 | 8 | 130 |
| Cardiology | 1 | 0 | 0 | 1 |
| EEG | 2 | 3 | 3 | 8 |
| EKG | 16 | 39 | 3 | 58 |
| Technicians | 125 | 142 | 33 | 300 |
| Total | 188 | 262 | 47 | 497 |
| Nursing | | | | |
| L.P.N. | 953 | 1650 | 108 | 2711 |
| Assistants | 97 | 144 | 50 | 291 |
| Aides | 895 | 2713 | 25 | 3633 |
| Total | 1945 | 4507 | 290 | 6742 |
| Vocational Instruction | | | | |
| Industrial | 54 | 52 | 47 | 153 |

One inventory distributed to the institutions of higher learning consisted of a master list of educational programs to prepare persons for service in the health and/or adaptive behavioral problem service areas. This inventory was designed to establish a list of programs offered by institutions of higher learning that would prepare persons for service in the preceding areas. This inventory also contained a request for information regarding plans the various institutions had for the initiation of additional programs.

Another form distributed to the institutions was the "Individual Program Inventory" which was designed to provide data for analyzing each program currently offered at a given institution of higher learning. The major information provided by this inventory was the length of the program, the number of students enrolled and graduating from the program, the possible capacity of the program and any existing plans which the institution had for modifying programs.

One of the major objectives of Phase II was to determine the programs which were available at institutions of higher education in the State during the 1966-67 academic year. From an analysis of programs offered by these institutions it was found that the programs presented in Table VII were available to students desiring programs in health and/or adaptive behavioral problem service areas.

Some of the programs offered were found to be adequate when needs of the health and related service areas were compared to the graduates being produced by these programs. (These programs are summarized in Table VIII.) It was felt that these programs were adequate with respect to producing a sufficient number of graduates to supply needs that were established in Phase I. In some bachelor's degree programs there appeared to be a surplus of graduates, however, it was felt that this was not a true surplus since these programs were acting as feeder programs to master's level programs preparing persons for services in some of the specialized areas.

TABLE VII

COLLEGIATE PROGRAMS AVAILABLE IN ARKANSAS DURING THE ACADEMIC YEAR 1967-68 BY LEVEL AND INSTITUTION

| LEVEL & PROGRAM | A&M | AM&N | AC | APC | ASU | C. of O. | Harding | HSC | Hendrix | JBU | OBU | Phil. Smith | SSC | SCA | U. of A. | UALR | Med. Center |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DOCTORAL | | | | | | | | | | | | | | | | | |
| Counselor Educ. | | | | | | | | | | | | | | | X | | |
| Educ. Adm. & Supv. | | | | | | | | | | | | | | | X | | |
| Elementary Educ. | | | | | | | | | | | | | | | X | | |
| Secondary Educ. | | | | | | | | | | | | | | | X | | |
| Vocational Educ. | | | | | | | | | | | | | | | X | | |
| Clinical Psycho. | | | | | | | | | | | | | | | X | | |
| Exper. Psycho. | | | | | | | | | | | | | | | X | | |
| Bacteriology | | | | | | | | | | | | | | | X | | |
| Chemistry | | | | | | | | | | | | | | | X | | |
| Business Adm. | | | | | | | | | | | | | | | X | | |
| Instrumental Sci. | | | | | | | | | | | | | | | X | | |
| Anatomy | | | | | | | | | | | | | | | | | X |
| Physiology (General) | | | | | | | | | | | | | | | | | X |
| Micro-Biology | | | | | | | | | | | | | | | | | X |
| Biochemistry | | | | | | | | | | | | | | | X | | X |
| Sanitary Engr. | | | | | | | | | | | | | | | X | | |
| Recreation | | | | | | | | | | | | | | | X | | |
| SPECIALIST | | | | | | | | | | | | | | | | | |
| Counselor Educ. | | | | | | | | | | | | | | | X | | |
| Educ. Adm. & Supv. | | | | | | | | | | | | | | | X | | |
| Elementary Educ. | | | | | | | | | | | | | | | X | | |
| Secondary Educ. | | | | | | | | | | | | | | | X | | |
| Vocational Educ. | | | | | | | | | | | | | | | X | | |

Table VII Continued

| LEVEL & PROGRAM | A&M | AM&N | AC | APC | ASU | C. of O. | Hard-ing | HSC | Hen-drix | JBU | OBU | Phil. Smith | SSC | SCA | U. of A. | UALR | Med. Center |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MASTER'S | | | | | | | | | | | | | | | | | |
| Adm. & Supv. | | | | | X | | | | | | | | | | X | | |
| Bacteriology | | | | | | | | | | | | | | | X | | |
| Biochemistry | | | | | | | | | | | | | | | X | | X |
| Biology | | | | | X | | | X | | | | | | X | | | |
| Business Adm. | | | | | | | | | | | | | | | X | | |
| Chemistry | | | | | X | | | | | | | | | | X | | |
| Guidance & Couns. | | | | | X | | | X | | | | | | X | X | | |
| Health Educ. (PH) | | | | | | | | | | | | | | X | X | | |
| Indus. Educ. | | | | | | | | | | | | | | X | X | | |
| Microbiology | | | | | | | | | | | | | | | | | X |
| Nuclear Chem. | | | | | | | | | | | | | | | X | | |
| Nutrition & Dietetics | | | | | | | | | | | | | | | X | | |
| Pathology | | | | | | | | | | | | | | | | | X |
| Pharmaceutical Sci. | | | | | | | | | | | | | | | | | X |
| Physiology | | | | | | | | | | | | | | | | | X |
| Psychology | | | | | | | | | | | | | | | X | | |
| Recreation | | | | | | | | | | | | | | | X | | |
| Sanitary Engr. | | | | | | | | | | | | | | | X | | |
| Sociology | | | | | | | | | | | | | | | X | | |
| Special Education | | | | | | | | | | | | | | | | | |
| EMR - Elem. & Sec. | | | | | X | | | | | | | | | X | | | |
| TMR - Elem. | | | | | | | | | | | | | | | | | |
| Remedial Reading | | | | | X | | | | | | | | | X | | | |
| Learning Disabilities | | | | | | | | | | | | | | | | | |
| Physically Handicapped | | | | | | | | | | | | | | X | | | |
| Culturally Deprived | | | | | | | | | | | | | | | | | |
| Educ. Psychology | | | | | | | | | | | | | | | | | |
| Speech & Hrg. Pathology | | | | | | | X | | | | | | | | X | | |

Table VII Continued

| Level & Program | A&M | AM&N | AC | APC | ASU | C. of O. | Harding | HSC | Hendrix | JBU | OBU | Phil. Smith | SSC | SCA | U. of A. | UALR | Med. Center |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| BACHELOR'S | | | | | | | | | | | | | | | | | |
| Bio. Sci. | X | X | X | X | X | X | X | X | X | X | X | X | X | X | | X | |
| Bacteriology | | | | | | | | | | | | | | | X | | |
| Bus. Adm. | X | X | X | X | X | X | X | X | | | X | | X | X | X | X | |
| Chemistry | X | X | | X | X | X | X | X | X | X | X | X | X | X | X | X | |
| Early Childhood Educ. | | | | | X | | | | | | | | | | X | | |
| Health Educ. (PH) | | | | | | | | | | | | | | X | | | |
| Indus. Educ. | X | X | | | | | | | | | | | | X | X | | |
| Manual Arts Ther. | | | | | | | | | | | | | | X | | | |
| Medical Tech. | X | | | X | | X | | | | X | | | X | X | | X | X |
| Nursing | | | | | | | | | | | | | | X | | | X |
| Nutri. & Diet. | | X | | | | | X | | | | | | | | X | | |
| Pharmacy | | | | | | | | | | | | | | | | | X |
| Psychology | X | | X | X | | | X | X | X | | X | X | X | X | X | X | |
| Recreation | | X | | X | | | | | | | | | | | | | |
| Social Work | | | | | | | | | | | | X | | | X | | |
| Sociology | | X | | X | X | | X | X | | | X | X | X | X | X | X | |
| Special Education | | | | | | | | | | | | | | | | | |
| EMR - Elem. & Sec. | | | | | | | | | | | | | | X | | | |
| EMR - Elem. | | | | | X | | | | | | | X | | | X | | |
| TMR - Elem. | | | | | X | | | | | | | | | | X | | |
| Physically Handicapped | | | | | | | | | | | | X | | X | | | |
| Deaf & Hard-of-Hearing | | | | | | | | | | | | | | | X | | |
| Kindergarten | | | | | | | | | | | | | | | X | | |
| Speech Pathology | | | | | X | | X | | | | | | | X | X | | |

Another major objective of Phase II was to summarize the projection of graduates from all similar programs in institutions of higher learning over the 10 year interval and compare the number of graduates expected to be available to the State's needs and establish the total surplus or deficit expected by 1977. A tabulation of this summary appears in Table IX.

The regional need for personnel who would ordinarily be trained in programs which did not presently exist in any of the institutions of higher learning in the State was also analyzed in Phase II. The programs which did not exist at this time were summarized in the Phase II report as they appear in Table X.

In the summary of the Phase II report it was pointed out that by utilizing data obtained in Phase I and Phase II the project could move to its next major objective, establishing proposals which would indicate the possible expansion of existing programs and the location of any new programs needed in the health and related areas. It was also suggested in this summary that Phase III should concentrate most of its efforts on programs listed as not adequate or not existing.

## TABLE VIII

## EDUCATIONAL PROGRAMS EXPECTED TO GRADUATE SUFFICIENT NUMBERS TO MEET THE NEEDS FOR PERSONNEL IN THE HEALTH AND RELATED AREAS TO 1977

| Level | Program |
|---|---|
| Doctoral | Clinical Psychology |
| Master's | Administration and Supervision |
| | Curriculum and Instruction |
| | Physical Education |
| | Business Administration |
| | Chemistry |
| | Sanitary Engineering |
| Bachelor's | Biological Science |
| | Chemistry |
| | Microbiology |
| | Business Administration |
| | Psychology |
| | Physical Education |
| | Industrial Arts |
| | Sociology |
| | Speech Therapy |
| Vocational | Vocational Instructor |

## TABLE IX

### EDUCATIONAL PROGRAMS EXPECTED TO GRADUATE INSUFFICIENT NUMBERS TO MEET THE NEEDS FOR PERSONNEL IN THE HEALTH AND RELATED AREAS

| Level & Program | Surplus or Deficit by Region by 1977 | | | | | | | | | | | | | | | Add'l. Replacement Needs | Surplus or Deficit by 1977 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | I | II | III | IV | V | VI | VII | VIII | IX | X | XI | XII | XIII | XIV | Total | | |
| **SPECIALIST** | | | | | | | | | | | | | | | | | |
| Adm. & Sup. | +42 | +14 | + 4 | + 5 | + 6 | + 2 | + 7 | + 3 | + 1 | + 18 | + 4 | + 3 | + 2 | + 3 | +114 | 9 | + 105 |
| Cur. & Inst. | −12 | −18 | −18 | −20 | −18 | −13 | − 8 | −11 | −10 | − 43 | −25 | −18 | − 24 | − 34 | −272 | 59 | − 331 |
| Guid. & Counseling | | | Neither needs nor graduates were distributable | | | | | | | | | | | | − 9 | 2 | − 11 |
| **MASTER'S** | | | | | | | | | | | | | | | | | |
| EMR | −56 | −52 | −33 | −45 | −33 | − 8 | + 3 | +18 | +22 | +136 | −26 | −32 | − 40 | + 41 | −105 | 165 | − 270 |
| Phy. Handi. | −35 | −32 | −21 | −26 | −23 | − 7 | − 2 | − 4 | 0 | + 29 | −25 | −21 | − 39 | − 52 | −258 | 102 | − 360 |
| Speech & Hrg. Pathology | −49 | −57 | −37 | −46 | −43 | −33 | −22 | −26 | −31 | −156 | −56 | −37 | − 74 | − 87 | −754 | 157 | − 911 |
| G. & C. (Ele.) | −46 | −67 | −41 | −51 | −33 | −39 | −23 | −26 | −38 | −161 | −66 | −45 | − 91 | − 97 | −824 | 200 | −1024 |
| G. & C. (Sec) | −35 | −41 | 0 | − 8 | +86 | −19 | − 2 | + 3 | 0 | + 33 | − 3 | −26 | − 36 | + 41 | − 7 | 153 | − 160 |
| Psychology | + 4 | − 5 | − 3 | − 6 | − 6 | − 5 | 0 | − 5 | − 5 | − 19 | − 6 | − 5 | − 12 | − 13 | − 86 | 29 | − 115 |
| Educ. Psy. | − 5 | − 5 | − 3 | − 4 | − 3 | − 1 | − 1 | − 1 | − 1 | − 17 | − 4 | − 4 | − 6 | − 8 | − 63 | 18 | − 81 |
| Indus. Arts | − 3 | − 8 | − 5 | − 8 | − 4 | − 1 | − 2 | − 3 | − 1 | + 3 | − 4 | − 6 | − 10 | − 11 | − 63 | 27 | − 90 |
| Microbio. | +12 | + 3 | + 1 | 0 | + 1 | 0 | + 1 | 0 | 0 | + 3 | + 1 | 0 | − 1 | 0 | + 21 | 6 | + 15 |
| Pub. Health | − 3 | − 5 | − 3 | − 3 | − 2 | − 2 | − 1 | − 2 | − 2 | − 5 | − 2 | − 3 | − 6 | − 6 | − 45 | 13 | − 58 |
| Nutrition* | | | Needs not distributable | | | | | | | | | | | | − 24 | 7 | − 31 |
| **BACHELOR'S** | | | | | | | | | | | | | | | | | |
| Social Work | − 5 | −36 | −20 | −19 | −34 | −28 | −13 | −17 | −25 | − 45 | −36 | −24 | − 48 | − 73 | −423 | 157 | − 580 |
| Nursing | −72 | −83 | −86 | −67 | −62 | −25 | −18 | −28 | −28 | − 47 | −41 | −53 | −113 | −141 | −864 | 319 | −1183 |
| Diet. & Nutr. | − 1 | − 9 | −37 | − 6 | −29 | −18 | − 9 | −13 | + 4 | − 23 | +45 | + 2 | + 13 | − 44 | −125 | 81 | − 206 |
| Med. Tech.** | + 2 | −18 | −15 | −38 | + 3 | + 8 | −16 | −17 | −18 | − 56 | + 4 | −11 | − 11 | − 36 | −219 | 72 | − 291 |

* All Nutrition needs were in state agencies.

** These needs were not projected for 1977, only for 1972.

Table IX Continued

| Level & Program | Surplus or Deficit by Region by 1977 | | | | | | | | | | | | | | | Add'l. Replace-ment Needs | Surplus or Deficit by 1977 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | I | II | III | IV | V | VI | VII | VIII | IX | X | XI | XII | XIII | XIV | Total | | |
| **VOCATIONAL** | | | | | | | | | | | | | | | | | |
| L. P. N. | | | | | | Graduates not distributable | | | | | | | | | +2741 | 546 | +2195 |
| Dental Assistants | | | | | | Graduates not distributable | | | | | | | | | — 579 | 156 | — 735 |
| Lab. Assistants | | | | | | Needs and Graduates not distributable | | | | | | | | | — 10 | 26 | — 36 |
| X-Ray Technicians | | | | | | Needs and Graduates not distributable | | | | | | | | | + 466 | 19 | + 447 |
| Psychiatric Technicians | | | | | | Needs and Graduates not distributable | | | | | | | | | — 196 | 61 | + 135 |
| Attendants (MR) | | | | | | Needs and Graduates not distributable | | | | | | | | | — 645 | 219 | — 864 |

## TABLE X

## EDUCATIONAL PROGRAMS NOT EXISTING IN ARKANSAS TO GRADUATE PERSONS TO ENTER THE HEALTH AND RELATED AREAS

## 1967-68

| Level | Program |
|---|---|
| Doctoral | Allergy (residency) |
| | Cardio-Vascular Disease (residency) |
| | Dental Surgery (general) |
| | Educational Psychology |
| | Gastro-Enterology (residency) |
| | Neurosurgery (residency) |
| | Occupational Medicine (residency) |
| | Optometry |
| | Otolaryngology (residency) |
| | Physical Medicine (residency) |
| | Plastic Surgery (residency) |
| | Preventive Medicine (residency) |
| | Proctology (residency) |
| | Pulmonary Disease (residency) |
| | Speech Pathology |
| | Thoracic Surgery (residency) |
| Specialist | Educational Psychology |
| Master's | Audiology |
| | Library Science |
| | Nursing |
| | Recreational Therapy |
| | Rehabilitation Counseling |
| | Social Work |
| | Special Education |
| | Blind and Partially Blind |
| | Deaf and Partially Deaf |
| | Kindergarten for MR |
| | Learning Disabilities |
| | Trainable Mentally Retarded |

Table X Continued

| Level | Program |
|---|---|
| Bachelor's | Arts and Crafts<br>Cyto-Technology<br>Laboratory Technology<br>Medical Records Science<br>Occupational Therapy<br>Physical Therapy<br>Recreational Therapy<br>Sanitary Engineering* |
| Associate | Associate Teaching<br>Dental Hygiene<br>Institutional Teaching<br>Laboratory Assistant<br>Library Assistant<br>Medical Records Science<br>Nursing |
| Vocational | Dietary Supervisors<br>Library Aides<br>Therapists and Assistants |

*Programs exist which could be modified to supply this need.

# CHAPTER III

# INTRODUCTION—PHASE THREE

## PURPOSE OF PHASE III

In the preceding section of this report it was pointed out that the major objective of the Phase I study was to determine the number of professional and semi-professional personnel needed to provide the services necessary for optimum care to that portion of the population of the State who may have health and/or adaptive behavioral problems and the major aim of the Phase II study was to analyze the potentials of the institutions of higher learning in Arkansas to prepare personnel for health and related areas.

This report, or Phase III of the study, has as its major objective the establishment of proposals which will indicate the possible expansion of existing programs and the possible location of new programs needed in health and related areas. This report, as envisioned in original plans for the total study, places its primary emphasis on, but is not restricted to, programs classified as "not adequate" or "not existing" in the Phase II report.

## NEED FOR THE STUDY

It is felt that the Phase III study and report, which is in essence a state plan for providing programs to train personnel to meet the State's needs in health and related areas, will, if implemented, provide a unified and coordinated approach to the eventual elimination of the serious personnel deficits in these areas. The need for qualified personnel, the inadequacy of existing programs, and the lack of programs to train personnel in many critical areas clearly establishes the need for such an approach.

## LIMITATIONS

The Phase III report, as was true of the Phase I and II reports, is limited to personnel and program needs in the health and/or adaptive behavioral problem service areas.

## PRIORITY OF NEEDS

After Phase II of the study was completed and a comparison made between the needs as identified in Phase I and the present and projected production by the various programs it was evident that a priority classification should be established for new and expanded programs to train personnel in the health and/or adaptive behavioral areas.

The study staff summarized the needs data and then on the basis of recommendations made by members of the Advisory Committee, Dr. Harold McPheeters of the Southern Regional Educational Board, Mr. Ed Rensch of the Arkansas office for Comprehensive Statewide Health Planning and Dr. Darrel J. Mase of the University of Florida, established the priority needs for these programs. This classification consisted of four priority levels, "Most Urgent", "Urgent", "Intermediately Urgent" and "Least Urgent." Existing and nonexisting programs for all areas and levels were categorized under the appropriate priority classifications.

The various priority groupings established were as follows:

## MEDICAL DEGREE PROGRAMS

### Programs Existing

#### Most Urgent

General Practice
Internists
Neurology
Psychiatry

#### Urgent

Opthalmology
Pediatrics
Radiology

#### Intermediately Urgent

Anesthesiology
General Surgery
Obstetrics-Gynecology
Orthopedics

#### Least Urgent

Dermatology
Pathology
Urology

### Programs Not Existing

#### Intermediately Urgent

Allergy
Dentistry
Neurosurgery
Occupational Medicine
Otholaryngology
Physical Medicine
Preventive Medicine

#### Least Urgent

Cardio-Vascular
Gastro-Enterology
Plastic Surgery
Proctology
Pulmonary Disease
Thoracic Surgery

## MEDICAL RELATED PROGRAMS

### Programs Existing

#### Most Urgent

MASTER'S DEGREE
Public Health

BACHELOR'S DEGREE
Nursing

#### Urgent

MASTER'S DEGREE

BACHELOR'S DEGREE
Nutrition

Most Urgent

ASSOCIATE DEGREE
Nursing (P)

Intermediately Urgent

MASTER'S DEGREE
Microbiology

BACHELOR'S DEGREE
Medical Technology

VOCATIONAL COURSE
Licensed Practical Nurse

Urgent

VOCATIONAL COURSE
Dental Assistant

Least Urgent

BACHELOR'S DEGREE
Pharmacy

VOCATIONAL COURSE
Psychiatric Technician
X-Ray Technician
Laboratory Assistant
and Aides

### Programs Not Existing

Most Urgent

BACHELOR'S DEGREE
Physical Therapy

VOCATIONAL COURSE
Therapists and Assistants

Intermediately Urgent

BACHELOR'S DEGREE
Medical Records Science
Sanitary Engineering

ASSOCIATE DEGREE
Medical Records Science

Urgent

MASTER'S DEGREE
Nursing

BACHELOR'S DEGREE
Laboratory Technology
Occupational Therapy

Least Urgent

BACHELOR'S DEGREE
Cyto-Technology

ASSOCIATE DEGREE
Laboratory Assistant

VOCATIONAL COURSE
Dietary Supervisor

## BEHAVORIAL, EDUCATIONAL, AND REHABILITATIVE PROGRAMS

### Programs Existing

Most Urgent

MASTER'S DEGREE
Guidance and Counseling
Social Work
Speech Therapy

Urgent

SPECIALIST DEGREE
Guidance and Counseling

Most Urgent

BACHELOR'S DEGREE

Social Work

Intermediately Urgent

SPECIALIST DEGREE

Administration and Supervision

Curriculum and Instruction

MASTER'S DEGREE

Special Education-Physical Handicapped

VOCATIONAL COURSE

Attendants (MR)

Urgent

MASTER'S DEGREE

S.E.—E.M.R.

Rehabilitation Counseling

Least Urgent

MASTER'S DEGREE

Educational Psychology

Industrial Arts

Psychology

BACHELOR'S DEGREE

Business Administration

## Programs Not Existing

Most Urgent

DOCTORAL DEGREE

Educational Psychology

MASTER'S DEGREE

Special Education—Learning Disabilities

Intermediately Urgent

DOCTORAL DEGREE

Speech Pathology

MASTER'S DEGREE

Special Education—Blind

Special Education—Deaf

Special Education—Kind. M.R.

BACHELOR'S DEGREE

Recreational Therapy

ASSOCIATE DEGREE

Associate Teaching

Urgent

SPECIALIST DEGREE

Educational Psychology

MASTER'S DEGREE

Special Education—T.M.R.

*Least Urgent*

MASTER'S DEGREE

Audiology

Library Science

Recreational Therapy

BACHELOR'S DEGREE

Arts & Crafts

ASSOCIATE DEGREE

Institutional Teaching

Library Assistant

VOCATIONAL COURSE

Library Aides

The above priority listing formed the basis for the "Program Interest Inventory" which was circulated at a later date to each of the institutions of higher learning in the State.

## RESEARCH PROCEDURES

Much of the basic data required for the Phase III report was collected, analyzed and summarized during Phases I and II. However, specialized data pertaining to each institution's interest in expanding existing programs or initiating new programs in the health and/or adaptive behavioral area was collected. In addition, it was necessary for each institution desiring to expand an existing program or initiate a new one to submit a program proposal for each new or expanded program.

The Interest Inventory forms and other forms used by the various institutions in presenting proposals for new or expanded programs were constructed by Dr. Wayne B. Fisher and his staff working in cooperation with the Advisory Committee, Liaison Committee and members of the staff of the Commission on Coordination of Higher Educational Finance.

Each institution of higher learning in the State, both public and private, was asked to complete the Program Interest Inventory in a manner which would reflect the institution's interest in initiating new programs or expanding existing ones. Those institutions not in a position to initiate new programs or expand existing ones were asked to indicate this on the interest forms. Forms to be used in presenting proposals for new or expanded programs were sent only to those institutions showing an interest in such programs on the Program Interest Inventory. The return on the Program Interest Inventory was 100 percent, however, some institutions did not submit program proposals for all programs in which they expressed an interest on the Program Interest Inventory.

# CHAPTER IV

# PROPOSED NEW AND EXPANDED PROGRAMS

After the priority classifications for present and proposed programs to train personnel for service in the health and/or adaptive behavioral areas had been approved, the project staff developed a Program Interest Inventory based on this classification. (See Appendix B) This inventory or questionnaire was distributed to all institutions of higher learning in the State and on the basis of responses from the various institutions, a tabulation indicating each institution's interest in expanding existing programs or initiating new programs in the health and/or adaptive behavioral service areas was made by the project staff.

The institutional response to the above questionnaire was 100 percent and several institutions indicated an interest in initiating or expanding some programs not listed under any of the established priorities but still in the health and/or adaptive behavioral service areas. In the following summary of institutional interest in expanding or initiating programs only those programs in the approved priority areas are included.

## PROGRAM PROPOSALS

Members of the Liaison Committee, consultants, the study director and staff members of the Commission on Coordination of Higher Educational Finance established program criteria and developed a series of forms to be used by the institutions of higher learning in presenting proposals for the expansion of existing programs and the initiation of new programs in the health and/or adaptive behavioral problem service areas. (See Appendix B)

The final draft of these forms was approved by the Liaison Committee on February 13, 1969. During this same meeting the Liaison Committee voted to establish a sub-committee to be designated as the "Reviewing Committee" and given the responsibility of reviewing and approving all institutional proposals for new or expanded programs. The Reviewing Committee was also instructed to make recommendations for further expansion of existing programs and the initiation of additional new programs for program areas in which proposals presented by the various institutions would not provide an adequate number of graduates to meet the State's personnel needs.

Copies of the program proposal forms, sufficient for submitting proposals for each new or expanded program, were furnished the various institutions expressing an interest in such programs as reflected on the Program Interest Inventory. However, a number of institutions indicating an interest in one or more programs on the Interest Inventory did not present proposals for any programs and other institutions did not submit proposals for all programs in which they had expressed an interest. No proposals were submitted by the private institutions of higher learning although most of these institutions had indicated an interest in submitting proposals for one or more programs.

## PROPOSALS TO INITIATE NEW OR EXPAND EXISTING MEDICAL RELATED PROGRAMS

A tabulation of institutions presenting proposals to initiate new or expand existing programs in medical related areas is presented in Tables XI and XII. From an analysis of these tables it may be observed that with the exception of Physical Therapy, at least one institution presented a proposal to expand an existing program in each of the program areas classified "Most Urgent" and five institutions presented proposals to expand existing associate degree programs in Nursing. If implemented, the program expansions in Nursing will represent tremendous progress toward meeting personnel needs in this area. In the program priority area classified as "Urgent", proposals for program expansions were presented for all areas except Dental Assistants. Under the classification "Intermediately Urgent", proposals for expanding programs were received for only two programs, Microbiology at the master's level and Sanitary Engineering at the bachelor's level. Proposals were received for program expansions in all programs except Laboratory Assistants and Aides for those programs classified as "Least Urgent".

The various institutions of higher learning evidenced considerable interest initiating new programs in medical and related areas. Program proposals to initiate new programs were submitted for all programs in the "Most Urgent" category, all except Laboratory Technology in the "Urgent" category, two programs in the "Intermediately Urgent" category and for two programs in the areas classified as "Least Urgent".

## TABLE XI

## INSTITUTIONS SUBMITTING PROPOSALS TO EXPAND EXISTING MEDICAL RELATED PROGRAMS

| PROGRAM AND LEVEL | INSTITUTIONS PRESENTING PROPOSALS |
|---|---|
| **URGENCY OF NEED FOR PROGRAM** | |
| **Most Urgent** | |
| Program Level — Master's Degree | |
| Name of Program | |
| Public Health (Health Education) | U. of A. |
| Program Level — Bachelor's Degree | |
| Name of Program | |
| Nursing | Med. Center |
| Physical Therapy | ——— |
| Program Level — Associate Degree | |
| Name of Program | |
| Nursing (Practical) | U. of A. at L. R.; Phillips Co.; A.S.U.; A. & M. |
| **URGENCY OF NEED FOR PROGRAM** | |
| **Urgent** | |
| Program Level — Master's Degree | |
| Name of Program | |
| Nutrition | U. of A. |
| Program Level — Bachelor's Degree | |
| Name of Program | |
| Nutrition | U. of A. |
| Program Level — Vocational Course | |
| Name of Program | |
| Dental Asst. | ——— |

Table XI Continued

### URGENCY OF NEED FOR PROGRAM

Intermediately Urgent

Program Level — Master's Degree

| Name of Program | |
|---|---|
| Microbiology | Med. Center |

Program Level — Bachelor's Degree

| Name of Program | |
|---|---|
| Med. Technology | ——— |
| Med. Rec. Sci. | ——— |
| Sanitary Engineering (Civil Eng.) | U. of A. |

Program Level — Vocational Course

| Name of Program | |
|---|---|
| L. P. N. | ——— |

| PROGRAM AND LEVEL | INSTITUTIONS PRESENTING PROPOSALS |
|---|---|

### URGENCY OF NEED FOR PROGRAM

Least Urgent

Program Level — Bachelor's Degree

| Name of Program | |
|---|---|
| Pharmacy | Med. Center |
| Biochemistry | U. of A. |

Program Level — Vocational Course

| Name of Program | |
|---|---|
| Psychiatric Technician | ——— |
| X-Ray Technician | Med. Center |
| Lab. Asst. & Aides | ——— |

Table XI Continued

## INSTITUTIONAL ABBREVIATIONS

Institutional abbreviations in this table and throughout the report are as follows:

| | |
|---|---|
| Arkansas Agricultural and Mechanical College | A. & M. |
| Arkansas Agricultural, Mechanical, and Normal College | A. M. & N. |
| Arkansas Baptist College | A. B. C. |
| Arkansas College | Ark. Col. |
| Arkansas Polytechnic College | Ark. Tech. |
| Arkansas State University | A. S. U. |
| Central Baptist College | C. B. C. |
| College of the Ozarks | C. of O. |
| Crowley's Ridge Junior College | Crowley's Rdg. |
| Harding College | Harding |
| Henderson State College | H. S. C. |
| Hendrix College | Hendrix |
| John Brown University | J. B. U. |
| Ouachita Baptist University | O. B. U. |
| Philander Smith College | Phil. Smith |
| Phillips County Junior College | Phillips Co. |
| Shorter College | Shorter |
| Southern Baptist College | S. B. C. |
| Southern State College | S. S. C. |
| State College of Arkansas | S. C. A.. |
| University of Arkansas at Fayetteville | U. of A. |
| University of Arkansas at Little Rock | U. A. L. R. |
| University of Arkansas Medical Center | Med. Center |
| Westark Junior College | Westark |

## TABLE XII

## INSTITUTIONS PRESENTING PROPOSALS TO INITIATE NEW MEDICAL RELATED PROGRAMS

| PROGRAM AND LEVEL | INSTITUTIONS PRESENTING PROPOSALS |
|---|---|
| URGENCY OF NEED FOR PROGRAM | |
| Most Urgent | |
| Program Level — Master's Degree | |
| Name of Program | |
| Public Health | U. of A. |
| Program Level — Bachelor's Degree | |
| Name of Program | |
| Physical Therapy | S. C. A.; Med. Center |
| Program Level — Associate Degree | |
| Name of Program | |
| Therapists & Asst. | Westark |
| URGENCY OF NEED FOR PROGRAM | |
| Urgent | |
| Program Level — Master's Degree | |
| Name of Program | |
| Nursing | S. C. A. |
| Program Level — Bachelor's Degree | |
| Name of Program | |
| Lab Technology | — — — |
| Occup. Therapy | Med. Center |
| Nutrition | H. S. C. |
| Program Level — Vocational Course | |
| Name of Program | |
| Dental Asst. | Westark |

Table XII Continued

| PROGRAM AND LEVEL | INSTITUTIONS PRESENTING PROPOSALS |
|---|---|
| **URGENCY OF NEED FOR PROGRAM** | |
| **Intermediately Urgent** | |
| Program Level — Bachelor's Degree | |
| Name of Program | |
| Med. Rec. Sci. | — — — |
| San. Eng. | — — — |
| Med. Technology | — — — |
| Program Level — Associate Degree | |
| Name of Program | |
| Med. Rec. Sci. | Westark |
| **URGENCY OF NEED FOR PROGRAM** | |
| **Least Urgent** | |
| Program Level — Bachelor's Degree | |
| Name of Program | |
| Biochemistry | — — — |
| Cyto-Technology | — — — |
| Program Level — Associate Degree | |
| Name of Program | |
| Lab. Asst. | A. M. & N. |
| Program Level — Vocational Course | |
| Name of Program | |
| Dietary Supv. | Med. Center |

## PROPOSALS TO INITIATE NEW OR EXPAND EXISTING BEHAVIORAL EDUCATIONAL AND REHABILITATIVE PROGRAMS

A summary of institutions submitting proposals to initiate new or expand existing behavioral educational and rehabilitative programs is presented in Tables XIII and XIV.

It may be observed from Table XIII that one or more institutions submitted proposals to expand existing programs in each program area classified as, "Most Urgent and Urgent", and proposals were also submitted for all but two program areas under the priority classifications, "Intermediately Urgent" and "Least Urgent".

The various institutions of higher learning in the State indicated a strong interest in initiating new programs at all levels in programs listed under the priority classification, "Most Urgent", "Urgent" and "Intermediately Urgent" and also for programs at the master's level classified as, "Least Urgent". From an analysis of Table XIV it may be observed that one or more institutions submitted proposals to initiate new programs in all program areas classified as, "Most Urgent" and "Urgent", for a majority of programs classified as, "Intermediately Urgent" and for all master's level programs classified as, "Least Urgent".

Proposals submitted for new and expanded programs in medical and related areas and in behavioral, educational and rehabilitative areas will not produce enough additional graduates to meet the State's needs in these areas. However, if the proposed new programs are implemented the State will have available one or more programs in most program areas included under the various priority classifications.

A tabulation reflecting the number of present and proposed new programs for each program area classified in the broad category of medical related programs and behavioral, educational and rehabilitative programs is presented in Tables XV and XVI. From an analysis of these tables it may be observed that four of the eight program areas in which there is not an existing or proposed program are under the, "Least Urgent", priority classification for behavioral, educational and rehabilitative programs and only one program area classified as, "Most Urgent" or "Urgent", under either group of programs does not have an established or proposed program.

## TABLE XIII

## INSTITUTIONS PRESENTING PROPOSALS TO EXPAND EXISTING BEHAVIORAL, EDUCATIONAL AND REHABILITATIVE PROGRAMS

| PROGRAM AND LEVEL | INSTITUTIONS PRESENTING PROPOSALS |
|---|---|
| **URGENCY OF NEED FOR PROGRAM — Most Urgent** | |
| Program Level — Master's Degree | |
| Name of Program | |
| Guid. & Couns. | S. C. A.; A. S. U.; U. of A. |
| Social Work | U. of A. |
| Speech Ther. | U. of A. |
| Program Level — Bachelor's Degree | |
| Name of Program | |
| Social Work | U. of A. |
| **URGENCY OF NEED FOR PROGRAM — Urgent** | |
| Program Level — Specialist Degree | |
| Name of Program | |
| Guid. & Couns. | U. of A. |
| Program Level — Master's Degree | |
| Name of Program | |
| S.E. — E.M.R. | A. S. U. |
| Rehab. Couns. | A. S. U. |
| S.E. — T.M.R. | A. S. U. |
| **URGENCY OF NEED FOR PROGRAM — Intermediately Urgent** | |
| Program Level — Doctoral Degree | |
| Name of Program | |
| Gen. Psychology | U. of A. |

Table XIII Continued

| PROGRAM AND LEVEL | INSTITUTIONS PRESENTING PROPOSALS |
|---|---|
| Program Level — Specialist Degree | |
| Name of Program | |
| Adm. & Supv. | — — — |
| Curr. & Inst. | U. of A. |
| Program Level — Master's Degree | |
| Name of Program | |
| S. E. — Phy. Hand. | — — — |
| Program Level — Vocational Course | |
| Attendants (M.R.) | — — — |

URGENCY OF NEED FOR PROGRAM

Least Urgent

| | |
|---|---|
| Program Level — Master's Degree | |
| Name of Program | |
| Educ. Psycho. | — — — |
| Indus. Arts | U. of A. |
| Psychology | U. of A. |
| Program Level — Bachelor's Degree | |
| Name of Program | |
| Bus. Administration | A. S. U.; U. of A |

## TABLE XIV

## INSTITUTIONS PRESENTING PROPOSALS TO INITIATE NEW BEHAVIORAL, EDUCATIONAL AND REHABILITATIVE PROGRAMS

| PROGRAM AND LEVEL | INSTITUTIONS PRESENTING PROPOSALS |
|---|---|
| **URGENCY OF NEED FOR PROGRAM** Most Urgent | |
| Program Level — Doctoral Degree | |
| Name of Program | |
| Educ. Psycho. | A. S. U.; U. of A. |
| Program Level — Master's Degree | |
| Name of Program | |
| Social Work | A. S. U. |
| S.E. — Learn. Dis. | A. S. U.; U. of A. |
| Guid. & Couns. | A. M. & N.; S. S. C. |
| Speech Therapy | ——— |
| Program Level — Bachelor's Degree | |
| Name of Program | |
| Social Work | A. M. & N.; H. S. C.; A. S. U.; S. S. C. |
| **URGENCY OF NEED FOR PROGRAM** Urgent | |
| Program Level — Specialist Degree | |
| Name of Program | |
| Educ. Psycho. | A. S. U.; U. of A. |
| Guid. & Couns. | A. S. U. |
| Program Level — Master's Degree | |
| Name of Program | |
| S.E. — T.M.R. | U. of A. |
| Rehab. Counseling | U. of A.; S. C. A. |
| S.E. — E.M.R. | U. of A.; A. M. & N. |

Table XIV Continued

| PROGRAM AND LEVEL | INSTITUTIONS PRESENTING PROPOSALS |
|---|---|
| **URGENCY OF NEED FOR PROGRAM** | |
| Intermediately Urgent | |
| Program Level — Specialist Degree | |
| Name of Program | |
| Adm. & Supv. | A. S. U. |
| Curr. & Inst. | A. S. U. |
| Program Level — Doctoral Degree | |
| Name of Program | |
| Speech Pathology | ——— |
| Gen. Psychology | ——— |
| **URGENCY OF NEED FOR PROGRAM** | |
| Intermediately Urgent Cont. | |
| Program Level — Master's Degree | |
| Name of Program | |
| S.E. — Bilnd | U. of A. |
| S.E. — Deaf | A. S. U.; U. or A. |
| S.E. — Kind., M.R. | U. of A. |
| S.E. — Phys. Hand. | A. S. U. |
| Program Level — Bachelor's Degree | |
| Name of Program | |
| Recrea. Ther. | A. S. U. |
| Program Level — Associate Degree | |
| Name of Program | |
| Assoc. Teach. | ——— |
| Program Level — Vocational Course | |
| Name of Program | |
| Attendants (MR) | Westark |

Table XIV Continued

| PROGRAM AND LEVEL | INSTITUTIONS PRESENTING PROPOSALS |
|---|---|
| | **URGENCY OF NEED FOR PROGRAM** |
| | **Least Urgent** |
| Program Level — Master's Degree | |
| Name of Program | |
| Audiology | A. S. U. |
| Library Ser. | A. S. U. |
| Recrea. Ther. | A. S. U.; S. C. A. |
| Educ. Psycho. | A. S. U.; S. C. A. |
| Psychology | A. S. U. |
| Program Level — Bachelor's Degree | |
| Name of Program | |
| Arts & Crafts | ——— |
| Program Level — Associate Degree | |
| Name of Program | |
| Instit. Teach. | ——— |
| Library Asst. | ——— |
| Program Level — Vocational Course | |
| Name of Program | |
| Library Aides | ——— |

# TABLE XV

## NUMBER OF PRESENT AND PROPOSED MEDICAL RELATED PROGRAMS

### URGENCY OF NEED FOR PROGRAM

Most Urgent

| Program Level — Master's Degree<br>Name of Program | Number of Present Programs (1967) | Number of Proposed New Programs to 1977 |
|---|---|---|
| Public Health (Health Education) | 2 | 0 |
| Public Health | 0 | 1 |
| Program Level — Bachelor's Degree | | |
| Name of Program | | |
| Nursing | 2 | 0 |
| Physical Therapy | 0 | 2 |
| Program Level — Associate Degree | | |
| Name of Program | | |
| Nursing (P) | 7 | 2 |
| Program Level — Vocational Course | | |
| Name of Program | | |
| Therapists & Asst. | 0 | 1 |

### URGENCY OF NEED FOR PROGRAM

Urgent

| Program of Level — Master's Degree<br>Name of Program | Number of Present Programs (1967) | Number of Proposed New Programs to 1977 |
|---|---|---|
| Nutrition | 1 | 0 |
| Nursing | 0 | 2 |
| Program Level — Bachelor's Degree | | |
| Name of Program | | |
| Nutrition | 3 | 1 |
| Lab. Technology | 0 | 0 |
| Occup. Therapy | 0 | 1 |

Table XV Continued

## URGENCY OF NEED FOR PROGRAM

### Urgent Cont.

| Program Level — Vocational Course<br>Name of Program | Number of Present Programs (1967) | Number of Proposed New Programs to 1977 |
|---|---|---|
| Dental Asst. | 1 | 1 |

## URGENCY OF NEED FOR PROGRAM

### Intermediately Urgent

| Program Level — Master's Degree<br>Name of Program | Number of Present Programs (1967) | Number of Proposed New Programs to 1977 |
|---|---|---|
| Microbiology | 1 | 0 |
| **Program Level — Bachelor's Degree**<br>Name of Program | | |
| Med. Technology | 8 | 1 |
| Med. Rec. Sci. | 1 | 0 |
| San. Eng. | 1 | 0 |
| **Program Level — Vocational Course**<br>Name of Program | | |
| L.P.N. | 3 | 0 |

## URGENCY OF NEED FOR PROGRAM

### Least Urgent

| Program Level — Bachelor's Degree<br>Name of Program | Number of Present Programs (1967) | Number of Proposed New Programs to 1977 |
|---|---|---|
| Pharmacy | 1 | 0 |
| Biochemistry | 1 | 0 |
| Cyto-Technology | 0 | 0 |
| **Program Level — Associate Degree**<br>Name of Program | | |
| Lab. Asst. | 0 | 1 |
| **Program Level — Vocational Course**<br>Name of Program | | |
| Psychiatric Technician | 1 | 0 |
| X-Ray Technician | 1 | 0 |
| Lab Asst. & Aides | 1 | 0 |
| Dietary Supv. | 0 | 1 |

## TABLE XVI

## NUMBER OF PRESENT AND PROPOSED
## BEHAVIORAL, EDUCATIONAL AND REHABILITATIVE PROGRAMS

### URGENCY OF NEED FOR PROGRAM

Most Urgent

| Program Level — Doctoral Degree<br>Name of Program | Number of Present Programs (1967) | Number of Proposed New Programs to 1977 |
|---|---|---|
| Educ. Psycho. | 0 | 2 |
| **Program Level — Master's Degree**<br>Name of Program | | |
| Guid. & Couns. | 4 | 2 |
| Social Work | 1 | 1 |
| Speech Ther. | 2 | 0 |
| S.E. — Learn. Dis. | 1 | 2 |
| **Program Level — Bachelor's Degree**<br>Name of Program | | |
| Social Work | 2 | 4 |

### URGENCY OF NEED FOR PROGRAM

Urgent

| Program Level — Specialist Degree<br>Name of Program | Number of Present Programs (1967) | Number of Proposed New Programs to 1977 |
|---|---|---|
| Guid. & Couns. | 2 | 1 |
| Educ. Psycho. | 0 | 2 |
| **Program Level — Master's Degree**<br>Name of Program | | |
| S.E. — E.M.R. | 3 | 2 |
| Rehab. Couns. | 1 | 2 |
| S.E. — T.M.R. | 1 | 1 |

Table XVI Continued

## URGENCY OF NEED FOR PROGRAM

### Intermediately Urgent

| Program Level — Doctoral Degree<br>Name of Program | Number of Present Programs (1967) | Number of Proposed New Programs to 1977 |
|---|---|---|
| Gen. Psychology | 1 | 0 |
| Speech Pathology | 0 | 0 |
| **Program Level — Specialists Degree** | | |
| Name of Program | | |
| Adm. & Supv. | 1 | 1 |
| Curr. & Inst. | 1 | 1 |
| **Program Level — Master's Degree** | | |
| Name of Program | | |
| S.E. — Phy. Hand. | 1 | 1 |
| S.E. — Blind | 0 | 1 |
| S.E. — Deaf | 0 | 1 |
| S.E. — Kind., M.R. | 0 | 1 |
| **Program Level — Bachelor's Degree** | | |
| Name of Program | | |
| Recrea. Ther. | 0 | 1 |
| **Program Level — Associate Degree** | | |
| Name of Program | | |
| Assoc. Teach. | 0 | 0 |
| **Program Level — Vocational Course** | | |
| Name of Program | | |
| Attendants (M.R.) | 0 | 1 |

Table XVI Continued

## URGENCY OF NEED FOR PROGRAM

Least Urgent

| Program Level — Master's Degree<br>Name of Program | Number of Present Programs (1967) | Number of Proposed New Programs to 1977 |
|---|---|---|
| Educ. Psycho. | 0 | 2 |
| Indus. Arts | 2 | 0 |
| Psychology | 2 | 1 |
| Audiology | 0 | 1 |
| Library Ser. | 0 | 1 |
| Recreational Ther. | 0 | 1 |
| Program Level — Bachelor's Degree | | |
| Name of Program | | |
| Arts & Crafts | 0 | 0 |
| Bus. Administration | 13 | 0 |
| Program Level — Associate Degree | | |
| Name of Program | | |
| Instit. Teach. | 0 | 0 |
| Library Asst. | 0 | 0 |
| Program Level — Vocational Course | | |
| Name of Program | | |
| Library Aides | 0 | 0 |

7

## ADDITIONAL GRADUATES EXPECTED FROM PROPOSED NEW AND EXPANDED MEDICAL RELATED PROGRAMS

A tabulation of additional graduates expected from proposed new and expanded medical related programs and the adjusted surplus or deficit for 1977, assuming these programs will be implemented, is presented in Table XVII.

From an analysis of the data presented in this table, it may be observed that most of the programs will still not produce sufficient graduates to meet the State's projected personnel requirements in these areas.

In the group of programs classified as "Most Urgent", it may be observed that proposed new and expanded master's programs in Public Health will produce enough graduates to meet the projected needs and the same appears to be true for associate degree programs in Nursing. However, it is felt that the adjusted needs figure for associate degree nursing still does not represent adequate production in this area since many of the graduates from these programs should be encouraged to continue their training through the bachelor's degree level. In addition, there is a national trend to replace licensed practical nurses with graduates from associate degree programs. It should be pointed out that proposals for new and expanded programs in associate degree nursing represents tremendous progress towards meeting the personnel needs in this critical area. It may also be observed that current proposals will fall far short of producing adequate graduates to meet the personnel needs for bachelor's degree nurses, vocational level therapist and assistants, and bachelor degree physical therapist.

With the possible exception of Nutrition, none of the programs in the priority classification, "Urgent" will produce an adequate number of graduates to meet the projected need in these areas. On

# TABLE XVII

## ADDITIONAL GRADUATES EXPECTED FROM MEDICAL RELATED PROGRAMS TO 1977 AND THE ADJUSTED SURPLUS OR DEFICIT FOR 1977

| Program | Total Personnel Needed | Total Graduates Expected from by 1977 Current Programs | Surplus or Deficit by 1977 Based on Present Output | Additional Graduates From Expanded Programs to 1977 | Projected Graduates From New Programs to 1977 | Adjusted Surplus or Deficit by 1977 |
|---|---|---|---|---|---|---|
| URGENCY OF NEED FOR PROGRAM | | | | | | |
| Most Urgent | | | | | | |
| Program Level — Master's Degree | | | | | | |
| Name of Program | | | | | | |
| Public Health (Health Educ. Included) | 78 | 20 | — 58 | 80 | 33 | + 55 |
| Program Level — Bachelor's Degree | | | | | | |
| Name of Program | | | | | | |
| Nursing | 1913 | 730 | —1183 | 245 | 0 | — 938 |
| Physical Therapy | 193 | 0 | — 193 | 0 | 138 | — 55 |
| Program Level — Associate Degree | | | | | | |
| Name of Program | | | | | | |
| Nursing (P) | 2293 | N/D | —2293 | 1256 | 1313 | + 276 |
| Program Level — Vocational Course | | | | | | |
| Name of Program | | | | | | |
| Therapists & Asst. | 295 | 0 | — 295 | 0 | 53 | — 242 |
| URGENCY OF NEED FOR PROGRAM | | | | | | |
| Urgent | | | | | | |
| Program Level — Master's Degree | | | | | | |
| Name of Program | | | | | | |
| Nutrition | 41 | 10 | — 31 | 56 | 0 | + 25 |
| Nursing | 56 | 0 | — 56 | 0 | 137 | + 81 |
| Program Level — Bachelor's Degree | | | | | | |
| Name of Program | | | | | | |
| Nutrition | 486 | 280 | — 206 | 48 | 100 | — 58 |
| Lab Technology | 10 | 0 | — 10 | 0 | 0 | — 10 |
| Occup. Therapy | 122 | 0 | — 122 | 0 | 85 | — 37 |
| Program Level — Vocational Course | | | | | | |
| Name of Program | | | | | | |
| Dental Asst. | 935 | 200 | — 735 | 0 | 50 | — 685 |

Table XVII Continued

| Program | Total Personnel Needed | Total Graduates Expected from Current Programs by 1977 | Surplus or Deficit by 1977 Based on Present Output | Additional Graduates From Expanded Programs to 1977 | Projected Graduates From New Programs to 1977 | Adjusted Surplus or Deficit by 1977 |
|---|---|---|---|---|---|---|
| **URGENCY OF NEED FOR PROGRAM** | | | | | | |
| Intermediately Urgent | | | | | | |
| Program Level — Master's Degree | | | | | | |
| Name of Program | | | | | | |
| Microbiology | 35 | 50 | + 15 | 7 | 0 | + 22 |
| Program Level — Bachelor's Degree | | | | | | |
| Name of Program | | | | | | |
| Med. Technology | 431 | 140 | — 291 | 0 | 60 | — 231 |
| Med. Rec. Sci. | 238 | 0 | — 238 | 0 | 0 | — 238 |
| San. Engineering | 164 | 320 | + 156 | 330 | 0 | + 486 |
| Program Level — Associate Degree | | | | | | |
| Name of Program | | | | | | |
| Med. Rec. Sci. | 138 | 0 | — 138 | 0 | 78 | — 60 |
| Program Level — Vocational Course | | | | | | |
| Name of Program | | | | | | |
| Licensed Practical Nurse | 3275 | 5470 | +2195 | 0 | 0 | +2195 |
| **URGENCY OF NEED FOR PROGRAM** | | | | | | |
| Least Urgent | | | | | | |
| Program Level — Bachelor's Degree | | | | | | |
| Name of Program | | | | | | |
| Pharmacy | 666 | 410 | — 256 | 227 | 0 | — 29 |
| Biochemistry | 6 | N/D | — 6 | 191 | 0 | + 185 |
| Cyto-Technology | 6 | 0 | — 6 | 0 | 0 | — 6 |
| Program Level — Associate Degree | | | | | | |
| Name of Program | | | | | | |
| Lab Assistant | 57 | 0 | — 57 | 0 | 60 | + 3 |
| Program Level — Vocational Courses | | | | | | |
| Name of Program | | | | | | |
| Psychiatric Tech. | 665 | 800 | + 135 | 0 | 0 | + 135 |
| X-Ray Tech. | 113 | 560 | + 447 | 25 | 0 | + 472 |
| Lab. Asst. & Aides | 156 | 120 | — 36 | 0 | 0 | — 36 |
| Dietary Supv. | 58 | 0 | — 58 | 0 | 42 | — 16 |

the basis of the original need projected for master's degree nursing (56), it appears that the proposed new and expanded programs in this area would supply enough graduates to meet the need in this area. However, due to the rapid expansion of associate degree programs in nursing and the increased demand for personnel with masters level training to teach in these programs, it appears the original estimate should be revised. It is felt this estimate should be increased by at least 100 percent since seven associate degree nursing programs have already been approved by the various institutions and three additional institutions plan to initiate programs.

In the program areas classified as,"Intermediately Urgent", master's degree programs in Microbiology, bachelor's degree programs in Sanitary Engineering and vocational programs for Licensed Practical Nurses will produce an adequate number of graduates to meet the 1977 projected need in these areas. In the case of vocational courses for Licensed Practical Nurses, there could possibly be an over production by 1977 if current production increases or remains constant and production from associate degree nursing programs increases rapidly during this same period. Bachelor's degree programs in Medical Technology and Medical Records Science will not produce an adequate number of graduates to materially reduce the relatively large personnel deficits. A new associate degree program is being proposed in Medical Records Science and will help in alleviating the projected 1977 deficit in this area.

Under the priority classification "Least Urgent", bachelor degree programs in Biochemistry and vocational programs in Psychiatric Technology and X-Ray Technology will produce adequate graduates to meet the State's needs by 1977. The projected deficits for the remaining programs listed under this priority group could probably be eliminated by minor expansion in these programs as the projected deficits are relatively small.

## ADDITIONAL GRADUATES EXPECTED FROM PROPOSED NEW AND EXPANDED BEHAVIORAL, EDUCATIONAL AND REHABILITATIVE PROGRAMS

A tabular summary of additional graduates expected from proposed new and expanded behavioral, educational and rehabilitative programs and the adjusted personnel surplus or deficit to 1977 is presented in Table XVIII. From any analysis of data presented in this table, it is obvious that some of the most critical personnel deficits are, and will continue to be, in areas served by these programs.

In the areas classified as "Most Urgent", it appears that proposed doctoral degree programs in Psychology will produce sufficient graduates to meet the State's needs by 1977 and that over production could possibly occur in bachelor's degree Social Work. It may also be observed that most of the programs at the master's degree level will not produce enough graduates to meet the State's needs and in 1977 there will still be critical personnel deficits in these areas. Members of the Reviewing Committee believe immediate attention should be given to further expansion of existing programs and the initiation of new programs in these areas.

With the exception of Guidance and Counseling at the specialists degree level, programs under the priority classification "Urgent" will not produce enough graduates to meet the State's needs in 1977 and needs for personnel produced by all master's degree programs in this priority group will continue to be critical.

It may also be observed that, with the exception of Administration and Supervision, very few of the programs listed under the priority classification, "Intermediately Urgent", will produce sufficient graduates to meet the State's needs and relatively large deficits will still exist in many of these areas.

## TABLE XVIII

### ADDITIONAL GRADUATES EXPECTED FROM BEHAVIORAL, EDUCATIONAL AND REHABILITATIVE PROGRAMS TO 1977 AND THE ADJUSTED SURPLUS OR DEFICIT FOR 1977

| Program | Total Personnel Needed | Total Graduates Expected from Current Programs by 1977 | Surplus or Deficit by 1977 Based on Present Output | Additional Graduates From Expanded Programs to 1977 | Projected Graduates From New Programs to 1977 | Adjusted Surplus or Deficit by 1977 |
|---|---|---|---|---|---|---|
| URGENCY OF NEED FOR PROGRAM | | | | | | |
| Most Urgent | | | | | | |
| Program Level — Doctoral Degree | | | | | | |
| Name of Program | | | | | | |
| Educ. Psycho. | 3 | 0 | — 3 | 0 | 26 | + 23 |
| Program Level — Master's Degree | | | | | | |
| Name of Program | | | | | | |
| Guid. & Couns. | 2119 | 935 | —1184 | 265 | 140 | — 779 |
| Social Work | 857 | 80 | — 777 | 259 | 0 | — 518 |
| Speech Ther. | 941 | 30 | — 911 | 30 | 0 | — 881 |
| S.E. — Learn. Dis. | 1272 | 0 | —1272 | 0 | 33 | —1239 |
| Program Level — Bachelor's Degree | | | | | | |
| Name of Program | | | | | | |
| Social Work | 940 | 360 | — 580 | 434 | 1162 | +1016 |
| URGENCY OF NEED FOR PROGRAM | | | | | | |
| Urgent | | | | | | |
| Program Level — Specialists Degree | | | | | | |
| Name of Program | | | | | | |
| Guid. & Couns. | 11 | N/D | — 11 | 127 | 68 | + 184 |
| Educ. Psycho. | 113 | 0 | — 113 | 0 | 89 | — 24 |
| Program Level — Master's Degree | | | | | | |
| Name of Program | | | | | | |
| S.E. — E. M. R. | 990 | 720 | — 270 | 30 | 94 | — 146 |
| Rehab. Couns. | 267 | N/D | — 267 | 100 | 89 | — 78 |
| S.E. — T. M. R. | 295 | 0 | — 295 | 15 | 15 | — 265 |

Table XVIII Continued

| Program | Total Personnel Needed | Total Graduates Expected from Current Programs by 1977 | Surplus or Deficit by 1977 Based on Present Output | Additional Graduates From Expanded Programs to 1977 | Projected Graduates From New Programs to 1977 | Adjusted Surplus or Deficit by 1977 |
|---|---|---|---|---|---|---|
| URGENCY OF NEED FOR PROGRAM | | | | | | |
| Intermediately Urgent | | | | | | |
| Program Level — Doctoral Degree | | | | | | |
| Name of Program | | | | | | |
| Gen. Psychology | 27 | 0 | — 27 | 24 | 0 | — 3 |
| Speech Pathology | 15 | 0 | — 15 | 0 | 0 | — 15 |
| Program Level — Specialists Degree | | | | | | |
| Name of Program | | | | | | |
| Adm. & Supv. | 55 | 160 | + 105 | 0 | 118 | + 223 |
| Curr. & Inst. | 355 | 24 | — 331 | 24 | 74 | — 233 |
| Program Level — Master's Degree | | | | | | |
| Name of Program | | | | | | |
| S.E. — Phy. Hand. | 610 | 250 | — 360 | 0 | 30 | — 330 |
| S.E. — Blind | 25 | 0 | — 25 | 0 | 38 | + 13 |
| S.E. — Deaf | 21 | 0 | — 21 | 0 | 58 | + 37 |
| S.E. — Kind., M.R. | 883 | 0 | — 883 | 0 | 16 | — 867 |
| Program Level — Bachelor's Degree | | | | | | |
| Name of Program | | | | | | |
| Recrea. Ther. | 306 | 0 | — 306 | 0 | 32 | — 274 |
| Program Level — Associate Degree | | | | | | |
| Name of Program | | | | | | |
| Assoc. Teach. | 131 | 0 | — 131 | 0 | 0 | — 131 |
| Program Level — Vocational Course | | | | | | |
| Name of Program | | | | | | |
| Attendants (M.R.) | 1314 | 450 | — 861 | 0 | 138 | — 726 |

Table XVIII Continued

| Program | Total Personnel Needed | Total Graduates Expected from Current Programs by 1977 | Surplus or Deficit by 1977 Based on Present Output | Additional Graduates From Expanded Programs to 1977 | Projected Graduates From New Programs to 1977 | Adjusted Surplus or Deficit by 1977 |
|---|---|---|---|---|---|---|
| URGENCY OF NEED FOR PROGRAM | | | | | | |
| Least Urgent | | | | | | |
| Program Level — Master's Degree | | | | | | |
| Name of Program | | | | | | |
| Educ. Psycho. | 106 | 25 | — 81 | 0 | 74 | — 7 |
| Indus. Arts | 160 | 70 | — 90 | 22 | 0 | — 68 |
| Psychology | 175 | 60 | — 115 | 21 | 64 | — 30 |
| Audiology | 17 | 0 | — 17 | 0 | 13 | — 4 |
| Library Ser. | 23 | 0 | — 23 | 0 | 40 | + 17 |
| Recreational Ther. | 6 | 0 | — 6 | 0 | 18 | + 12 |
| Program Level — Bachelor's Degree | | | | | | |
| Name of Program | | | | | | |
| Arts & Crafts | 104 | 0 | — 104 | 0 | 0 | — 104 |
| Bus. Administration | 47 | 3570 | +3523 | 1525 | 0 | +5048 |
| Program Level — Associate Degree | | | | | | |
| Name of Program | | | | | | |
| Instit. Teach. | 27 | 0 | — 27 | 0 | 0 | — 27 |
| Library Asst. | 19 | 0 | — 19 | 0 | 0 | — 19 |
| Program Level — Vocational Course | | | | | | |
| Name of Program | | | | | | |
| Library Aides | 12 | 0 | — 12 | 0 | 0 | — 12 |

Proposals to expand existing and initiate new programs for programs classified as "Least Urgent", will reduce deficits in many of these areas especially at the master's degree level. However, most of these programs will still not produce sufficient graduates to meet the State's needs.

## PROPOSALS TO INITIATE NEW OR EXPAND EXISTING MEDICAL DEGREE PROGRAMS

The University of Arkansas, through its School of Medicine in Little Rock, is the only institution of higher learning in the State authorized to award Medical Degrees. Therefore, this section of the report relates primarily to proposed new or expanded programs of the Medical School and its cooperating agencies.

One proposal was submitted for the expansion of an existing medical degree program. This program was for Ophthalmology and envisioned a program production of 30 additional graduates by 1977, however, this would still leave a relatively large personnel deficit.

In addition to the proposal for expansion of an existing program, the School of Medicine also plans to make some minor modifications in other programs which would provide for the admission of a limited number of additional students to these programs. In many instances the relatively small personnel deficit projected for these programs in 1977 will be eliminated through this procedure. One of the proposed new medical degree programs submitted by the School of Medicine is in Family and Community Medicine. It is anticipated that this program will be initiated in 1970 and that it will produce 96 graduates by 1977. This program was not originally included in the priority classifications established by the Liaison Committee and the need for personnel with medical degrees in this area was not included in the Phase I study and report. However, the Reviewing Committee agreed that this program should be included in the "Most Urgent" category and the projected personnel need should be approximately the same as that projected for General Practice.

A proposal was also submitted for a new program in Neurosurgery. The proposed program would enroll its first students in 1970 and would produce a sufficient number of graduates by 1977 to meet the State's needs.

## ADDITIONAL GRADUATES EXPECTED FROM PROPOSED NEW AND EXPANDED MEDICAL DEGREE PROGRAMS

The additional graduates expected from proposed new and expanded medical degree programs and the adjusted personnel surplus or deficit for 1977 is summarized in tabular form in Table XIX. It may be observed from this summary that, assuming the proposals to initiate new and expand existing programs are implemented, critical personnel deficits will still exist in many areas.

It may be observed from Table XIX that Family and Community Medicine in the priority grouping "Most Urgent" is a proposed new program and when implemented will assist in reducing the personnel deficit in General Practice. Members of the Reviewing Committee believe that this program should be initiated immediately and expanded as rapidly as financial and other resources will permit.

The Medical School and its cooperating agencies are planning additional expansions and modifications of programs which will assist in meeting the personnel deficits projected for 1977. In an evaluation and discussion of these proposals, the Reviewing Committee made the following observations concerning medical degree programs.

1. The Table XIX summary indicates that Dermatology, Neurology, Radiology, Urology and Thoracic Surgery programs for residency training are sufficient at their present level to produce enough qualified personnel to meet the manpower needs of the State of Arkansas by 1977. Orthopedics could easily erase its small projected deficit by accepting one more

## TABLE XIX

### ADDITIONAL GRADUATES EXPECTED FROM NEW AND EXPANDED MEDICAL DEGREE PROGRAMS TO 1977 AND THE ADJUSTED SURPLUS OR DEFICIT FOR 1977

| | Surplus or Deficit by 1977 Based on Present Output | Additional Graduates from Expanded Programs to 1977 | Projected Graduates from New Programs to 1977 | Projected Surplus or Deficit by 1977 |
|---|---|---|---|---|
| GROUP ONE — Most Urgent | | | | |
| Family & Community Medicine | N/C | 0 | 96 | (Helps Gen. Prac. Deficit) |
| General Practice | — | Program being modified | — | — |
| Internal Medicine | −171 | 0 | 0 | −171 |
| Neurology | − 3 | 0 | 0 | − 3 |
| Psychiatry | −200 | 0 | 0 | −200 |
| GROUP TWO — Urgent | | | | |
| Ophthalmology | Insufficient Data | 30 | Insufficient Data | — |
| Pediatrics | − 73 | 0 | 0 | − 73 |
| Radiology | + 10 | 0 | 0 | + 10 |
| GROUP THREE — Intermediately Urgent | | | | |
| Anesthesiology | − 22 | 0 | 0 | − 22 |
| General Surgery | − 56 | 0 | 0 | − 56 |
| Ob. — Gyn. | − 27 | 0 | 0 | − 27 |
| Orthopedics | − 11 | 0 | 0 | − 11 |
| Allergy | − 8 | 0 | 0 | − 8 |
| Dentistry | −214 | 0 | 0 | −214 |
| Neurosurgery | − 7 | 0 | 5 | − 2 |
| Occup. Med. | − 12 | 0 | 0 | − 12 |
| Otolaryngology | − 34 | 0 | 0 | − 34 |
| Physical Med. | − 13 | 0 | 0 | − 13 |
| Preventive Med. | − 7 | 0 | 0 | − 7 |
| GROUP FOUR — Least Urgent | | | | |
| Cardio-Vas. | − 5 | 0 | 0 | − 5 |
| Dermatology | + 3 | 0 | 0 | + 3 |
| Gastro-Ent. | − 1 | 0 | 0 | − 1 |
| Pathology | − 6 | 0 | 0 | − 6 |
| Plastic Sur. | − 6 | 0 | 0 | − 6 |
| Proctology | − 1 | 0 | 0 | − 1 |
| Pulmonary Dis. | − 3 | 0 | 0 | − 3 |
| Thoracic Sur. | 0 | 0 | 0 | 0 |
| Urology | + 1 | 0 | 0 | + 1 |

trainee per year into the current program. This will probably be accomplished in the near future as plans are currently being developed to utilize the orthopedic facilities at the Baptist Medical Center in order to make this expansion possible.

2. There are enough residency positions now available in Little Rock for Anesthesiology, Obstetrics-Gynecology, Pathology and Pediatrics to meet the projected needs for manpower by 1977. Since some of the current positions are not filled, recruitment of trainees needs to be a primary focus. All except Pediatrics are thinly staffed and some effort toward increasing the number of faculty in each of the other areas is necessary.

3. Listed under the priority classification, "Least Urgent" are several subspecialties of medicine and surgery which are currently producing a sufficient number of specialties to meet the projected needs. There are fellowships available for training in Cardiology, Gastro-Enterology and Pulmonary Diseases.

4. Plastic Surgery does not have a formal residency. It is possible that a cooperative program could be organized by the Medical School in cooperation with surgeons in Little Rock and that the State's manpower needs could be met through such a program.

5. The Neurosurgeon program now has a full-time professor and chairman and plans are being made to accept residents in Neurosurgery within the next year. This is a five or six year residency, however, there should be no manpower deficit in about ten years.

6. The new Division of Otolaryngology will be begun on July 1, 1969 and should be in a position to accept its first candidates for training on July 1, 1970.

7. Plans should be made for developing programs in Preventive Medicine and Public Health,

Occupational Medicine and Physical Medicine, and rehabilitation. The State currently does not have programs in these areas.

8. At the present time plans call for future programs in Preventive Medicine and Community Medicine in the division of Family and Community Medicine. It will be approximately five years before these areas are well developed.

9. There is presently a joint effort between the Veterans Hospital and the University of Arkansas School of Medicine to develop a Division of Physical Medicine and Rehabilitation. The Arkansas Rehabilitation Service is backing this effort. Presently a two-year survey has been completed. The institutions are actively in search of a person to head the program and develop its potential. This department is vital for developing training programs in Physiotherapy, Occupational Therapy, etc.

10. As reflected by Table XIX there are five programs which even at present capacity will have sizable deficits by 1977.

    A. Two of these, Family and Community Medicine and Ophthalmology, are new programs which are being initiated with an objective toward meeting manpower needs.

    B. General Surgery could meet its deficit in the next ten years by one of two approaches. It could accept eight residents per year into the training program. Enough beds to support this number of trainees would be available by utilization of teaching beds at the Arkansas Baptist Medical Center, Childrens' Hospital, and St. Vincent Infirmary. This would necessitate hiring of more full-time faculty to be assigned to these hospitals for organization of the teaching program and supervision of residents. The alternative would be for the University of Arkansas to support the development of another residency in General Surgery at Baptist Medical Center with some exchange of resident rotations to assure a well-rounded experience.

C. Psychiatry has adequate patient facilities in the Little Rock-Benton area. Both state hospitals and the university operate fully-approved residencies in Psychiatry. These are not filled to capacity because recruitment into the specialty has been a national problem. The capacity of both these residency programs will need to be doubled shortly if manpower needs are to be met in the next ten years. This will require a doubling of the teaching facilities at both institutions.

D. The largest projected deficit in 1977 is in Internal Medicine. In order to cope with this large a deficit, the teaching staff at the University of Arkansas School of Medicine needs to be doubled. Some of the faculty need to be stationed at the Baptist Medical Center and St. Vincent Infirmary in order to utilize all possible teaching beds in the Little Rock Area. This would require some shift in philosophy on the part of the University and its Department of Internal Medicine. There is evidence of a willingness to move in this direction.

Dentistry, which is listed under the priority classification, "Intermediately Urgent", reflects a relatively large projected personnel deficit for 1977. The State does not have a dental school and at the present time fewer than 25 students annually enter dental schools in neighboring states through cooperative programs. Arkansas will eventually have to resolve the issue of how the State can most effectively and economically meet the rather critical need for additional dentists. While a dental school producing 40 to 50 graduates per year is a possible solution to the State's needs, the cost of such a venture has been estimated to be in excess of $10,000,000 for the necessary physical plant (two-thirds of the funds might be available from the Federal Government) exclusive of land and approximately $3,500,000 a year to operate it.

It appears that a more feasible approach would be a secured arrangement with one or more dental schools in neighboring states whereby places would be maintained at these schools for Arkansas students. These programs should be planned so that 50 Arkansas students per year will be admitted. Members of the Reviewing Committee believe that the cooperative approach described above should be used to supply the State's needs for dentists and the State should not establish a dental school at the present time.

## EVALUATION OF PROPOSALS

The Reviewing Committee met on June 16 and July 23 to study and evaluate all institutional proposals for initiating new or expanding existing programs in the health and/or adaptive behavioral service areas. The Committee also analyzed the statistical data presented in this and other chapters of the report in order to ascertain the effect these proposals would have on reducing or eliminating personnel deficits in the health and/or adaptive behavioral service areas. The Committee discovered early in its deliberations that the main problem was not going to be a duplication of proposals, which had been expected, but the lack of a sufficient number of proposals to meet the State's needs.

Members of the Reviewing Committee felt that most of the proposals were excellent and all of them reflected a deep interest on the part of the institutions involved to assist the State in meeting its personnel needs in the health and/or adaptive behavioral service areas.

The membership of the Reviewing Committee felt that, due to the excellent quality of the limited number of proposals received and the large personnel deficits that would still exist after these proposals are implemented, all proposals except those in areas where problems of excessive duplication or overproduction exists should be approved. It was determined that proposals affected by one or both of these limitations are new master's degree programs in Guidance and Counseling proposed by Arkansas Agricultural, Mechanical and Normal College and Southern State College. The Committee suggested that Arkansas Agricultural, Mechanical and Normal College explore the possibility of establishing a cooperative program in this area with the University of Arkansas and Southern State College should expand its existing cooperative program with the University of Arkansas rather than initiate a new program. In addition, the Committee suggested that Henderson State College, Arkansas State University, Southern State College, and Arkansas Agricultural, Mechanical and Normal College should be appraised of a possible overproduction of personnel from bachelor's degree programs in Social Work which might occur from the duplication of programs in this specific program area. The Committee also suggested that Arkansas Agricultural, Mechanical and Normal College should explore the possibility of establishing a program for the Special Education, Educationally Mental Retarded at the master's degree level with the University of Arkansas rather than establishing a separate program.

# CHAPTER V

# SUMMARY AND RECOMMENDATIONS

With the completion of this report most of the major and specific objectives originally established for the total project, and discussed in Chapter I of this report, will be accomplished; however, both the Advisory Committee and the Liaison Committee have recommended that the project be continued beyond its scheduled expiration date of May 31, 1970. In making this recommendation both committees have reached the conclusion that much of the statewide effort expended in assessing the State's manpower needs, analyzing the present programs in these areas and recommending new and/or expanded programs to assist the State in meeting these needs will be minimized unless the institutions of higher learning and other state agencies are provided assistance in implementing the recommendations of this report. The members of both committees feel the Commission on Coordination of Higher Educational Finance should continue to serve as the agency responsible for state level coordination and implementation of the proposed plan for meeting these needs. The project staff should continue to be administratively responsible to the Commission and should provide assistance to the Commission, institutions of higher learning, and other agencies in their efforts to implement the programs deemed necessary for the production of sufficient personnel to meet the State's needs in the health and adaptive behavioral problem service areas.

The Reviewing Committee, in approving the various proposals to initiate new and expand existing programs, was acutely aware of the fact that the implementation of these proposals, and additional recommendations being made by the Committee for further expansion of many existing programs and the initiation of other new programs, will require a vast increase in operational support for the institutions of higher learning and will probably require a number of years for total implementation. Members of the Reviewing Committee and the project staff were also cognizant of the fact that none of the private institutions presented proposals to initiate new or expand existing programs and that the major emphasis for meeting the State's personnel needs must be placed on programs in the State's public colleges and universities.

It is felt that the following general and specific recommendations will in essence constitute a state plan for meeting a majority of the State's personnel needs in the health and adaptive behavioral problem service areas. If effectively implemented, this plan should produce a much improved and strengthened program for meeting Arkansas' personnel needs in these areas.

## GENERAL RECOMMENDATIONS

1. In the event financial or other difficulties prevent the implementation of all new and expanded programs necessary for meeting the State's personnel needs in the health and adaptive behavioral problem service areas, first priority should be assigned to those programs identified as "Most Urgent" and "Urgent". These programs should be initiated and/or expanded immediately.

2. Programs listed under the priority classification "Intermediately Urgent" and "Least Urgent" should be implemented as rapidly as financial and other resources permit. All programs should be implemented by 1977.

3. In order to provide the State level coordination and assistance necessary for effective implementation of the proposed plan, the current project should be continued for a minimum of two to four years.

4. The Commission on Coordination of Higher Educational Finance should continue to serve

as the agency responsible for state level coordination and implementation of the recommendations of the Study.

5. State and federal funding for the project should also be continued for at least two to four years beyond the present expiration date and should be at a level which would enable the Commission on Coordination of Higher Educational Finance to provide the personnel, facilities, and other operational cost necessary to discharge its responsibilities and obligations to the project.

6. As one of the most important continuing aspects of the Study, the Commission on Coordination of Higher Educational Finance and project staff should provide the leadership necessary for developing cooperative training programs in one or more areas identified as most critical.

Due to limited financial resources of the State, the resulting probability that implementation of recommended new or expanded programs will occur over an extended period and the importance attached by the Committee to implementing programs according to priority level, it is felt that a summary of programs needed to meet the State's manpower needs for health and/or adaptive behavioral areas should be presented prior to the specific recommendations concerning these programs. The Committee members recommend that, insofar as it is feasible to do so, programs should be initiated, expanded, and funded according to the following priority listing. (Programs at different degree levels within the various priority groups are not listed according to priority.)

# PROGRAMS

## GROUP I — MOST URGENT

### Doctoral Degree

1. Family and Community Medicine
2. General Practice
3. Internal Medicine
4. Neurology
5. Psychiatry
6. Educational Psychology

### Master's Degree

1. Public Health (Health Education Included)
2. Guidance and Counseling
3. Social Work
4. Speech Therapy
5. Special Education — Learning Disabilities

### Bachelor's Degree

1. Nursing
2. Physical Therapy
3. Social Work

### Associate Degree

1. Nursing

### Vocational Course

1. Therapists and Assistants

## GROUP II — URGENT

### Doctoral Degree

1. Ophthalmology
2. Pediatrics
3. Radiology

### Specialist Degree

1. Guidance and Counseling
2. Educational Psychology

### Master's Degree

1. Nutrition
2. Nursing
3. Special Education — Educable Mentally Retarded
4. Rehabilitation Counseling
5. Special Education — Trainable Mentally Retarded

### Bachelor's Degree

1. Nutrition
2. Laboratory Technology
3. Occupational Therapy

Vocational Course

1. Dental Assistant

## GROUP III — INTERMEDIATELY URGENT

Doctoral Degree

1. Anesthesiologist
2. General Surgery
3. Obstetric-Gynecology
4. Orthopedics
5. Allergy
6. Dentistry
7. Neurosurgery
8. Occupational Medicine
9. Otolaryngology
10. Physical Medicine
11. Preventive Medicine
12. General Psychology
13. Speech Pathology

Specialist Degree

1. Administration and Supervision
2. Curriculum and Instruction

Master's Degree

1. Microbiology
2. Special Education — Physically Handicapped
3. Special Education — Blind
4. Special Education — Deaf
5. Special Education — Kindergarten Mentally Retarded

Bachelor's Degree

1. Recreational Therapy
2. Medical Technology
3. Medical Records Science
4. Sanitary Engineering

Associate Degree

1. Medical Records Science
2. Associate Teaching

Vocational Course

1. Licensed Practical Nurse
2. Attendants (Mentally Retarded)

## GROUP IV — LEAST URGENT

Doctoral Degree

1. Cardio-Vascular
2. Dermatology

3. Gastro-Enterology
4. Pathology
5. Plastic Surgery
6. Proctology
7. Pulmonary Disease
8. Thoracic Surgery
9. Urology

Master's Degree

1. Educational Psychology
2. Industrial Arts
3. Psychology
4. Audiology
5. Library Science
6. Recreational Therapy

Bachelor's Degree

1. Pharmacy
2. Biochemistry
3. Cyto-Technology
4. Arts and Crafts
5. Business Administration

Associate Degree

1. Laboratory Assistant

2. Institutional Teaching

3. Library Assistant

Vocational Course

1. Psychiatric Technician
2. X-ray Technician
3. Laboratory Assistant and Aides
4. Dietary Supervisors
5. Library Aides

## RECOMMENDATIONS FOR MEDICAL DEGREE PROGRAMS

Arkansas has the potential to become a recognized leader in training high caliber health professionals as well as an innovator of better systems of disease prevention and medical care. However, the University of Arkansas Medical Center, which should serve as the leader in developing this potential, is seriously handicapped by a lack of adequate financial support for facilities, equipment, research, teaching, and other operational costs. The committee members and consultants feel that one of the most critical problems facing the State in regard to the initiation and expansion of programs necessary for the production of sufficient professional personnel to meet the State's manpower needs in medical and related areas is inadequate financial support of the Medical Center and its affiliated agencies.

Adequate support for existing medical degree programs and for new and/or expanded programs at the University of Arkansas Medical Center must be provided immediately if the State expects to avoid the manpower crisis which is rapidly developing in these areas.

In order to relieve the critical manpower problem involving graduates of medical degree programs, the committee offers the following recommendations.

1. Operational support and capital improvement funds for the Medical Center of the University of Arkansas should be increased to a level which is deemed adequate for the support of existing programs and for recommended new and/or expanded programs.

2. The program in Family and Community Medicine being planned by the University of Arkansas School of Medicine should be initiated immediately and expanded to peak capacity as rapidly as financial and other resources permit.

3. The program in General Surgery at the Medical School should be expanded sufficiently to meet projected manpower needs. This could be accomplished by expanding the affiliation with the Baptist Medical Center.

4. The University of Arkansas School of Medicine and the State Hospitals in Benton and Little Rock should attempt to recruit sufficient residents in Psychiatry to bring current programs to capacity. In addition, the capacity of these residency programs should be doubled by 1977.

5. The University of Arkansas School of Medicine should expand its present program in Internal Medicine to the extent necessary to meet projected manpower needs in 1977. In order to do this, the faculty will in all probability need to be doubled and some faculty would need to be stationed at the Baptist Medical Center and at St. Vincent Infirmary in order to utilize all possible teaching beds in the Little Rock area. It is recommended that the Medical Center explore the possibility of such a cooperative agreement with these institutions.

6. The University of Arkansas School of Medicine should expand, in cooperation with other medical facilities in the State, its present program in Ophthalmology to the extent necessary to meet the State's projected manpower needs.

7. Present programs in Pediatrics and Radiology at the University of Arkansas Medical Center and the program in Radiology at the Baptist Medical Center should be expanded sufficiently to meet the State's projected manpower needs.

8. The University of Arkansas School of Medicine and Veteran's Hospital should continue their cooperative efforts to develop a program in Physical Medicine and Rehabilitation and this program should be initiated as soon as it is feasible to do so.

9. The State currently does not have a program in Preventive Medicine and Public Health. Plans should be developed for a program in this area.

10. Health personnel needs of the State should be reevaluated periodically and other medical degree programs classified as "Intermediately Urgent" and "Least Urgent" should be initiated or expanded on the basis of the extent of need in these areas.

11. For the immediate future the State's needs for dentists should be met through a secured arrangement with one or more dental schools in neighboring states whereby places would be maintained in these schools for Arkansas students. These programs should be planned so that a minimum of 50 students per year will be admitted. As a long-range solution to the problem of providing sufficient dental personnel to meet the State's needs, consideration should be given to the feasibility of constructing a Dental School as part of the Health-Science Complex of the University of Arkansas School of Medicine. This should

not be done until the University of Arkansas School of Medicine and its supporting programs and facilities have been adequately funded.

## RECOMMENDATIONS FOR MEDICAL RELATED PROGRAMS

Arkansas' personnel needs in most of the medical related areas considered in this study and in other allied health sciences are of such a critical nature that if current trends continue to 1980 the State's ability to provide adequate health care services to all its citizens stands in serious jeopardy. This problem is at present a national one with Arkansas being in a less enviable position than most states.

In attempts to cope with this problem at the National level, the National Advisory Health Council's report on education for the allied health professions and services recommended the following.[1]

1. Development of interdisciplinary schools for the allied health professions by universities and other centers;
2. Instruction of faculty in educational methods and techniques;
3. Studies on the methods of delivery of health services, with identification of new occupational needs and the design of appropriate curricula for the optimum utilization of technical and auxiliary personnel by professionals;
4. Formulation of core curricula in allied health fields; establishment of a "career ladder" job series for upgrading of personnel, including design of necessary advanced educational

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[1] *Report of the National Advisory Commission on Health Manpower*—United States Government Printing Office, Washington D.C., 1967, pp. 79-86

components: studies on the roles of certification, licensing and accreditation;

5. Studies in recruitment methods: interdisciplinary recruiting;

6. Regional, state, and community wide planning for development of educational programs; strengthened liaison between community and four-year colleges and with medical center training programs and clinical facilities available for trainee field experience.

As a means to these ends the Council's report to the President suggests:

> "With the combining of several programs in a college or central unit, duplications in such areas as administration, faculty, and facilities can be minimized. More importantly, individuals who will later work together in the medical scene are prepared together. Communication with other health professionals, a critical factor in the provision of health services, is learned during their educational experience.[2]

On the national scene a number of states are focusing considerable attention on consortiums linking interested schools, colleges, hospitals, state agency programs, public health facilities and other groups. This is being approached in many instances through the establishment of one or more "Model" Colleges (or Schools) of Allied Health Sciences capable of offering leadership in decisive educational areas to other institutions and agencies.

Members of the Reviewing Committee and the study staff feel that in view of the recent merger of Little Rock University with the University of Arkansas to form the University of Arkansas at Little Rock, the Little Rock location of the Medical Center of the University of Arkansas, the rapidly developing private, federal, state, and county health and health related agencies in the Little Rock area, a "Model" School of Allied Health Sciences should be established as a cooperative venture be-

[2] Ibid., p.p. 1-5

tween the University of Arkansas at Little Rock and the University of Arkansas Medical Center. The Commission on Coordination of Higher Educational Finance through the staff of the Manpower Project: Health and Related Services and its present Advisory and Liaison Committees should be asked to serve in an advisory capacity to the University of Arkansas at Little Rock and the University of Arkansas Medical Center during the planning phases of the "Model" School. This is especially important since the school will serve all instititutions and agencies of higher education of the State and the membership of the Advisory and Liaison Committees is composed of representatives from institutions of higher learning and health or health related agencies in the State.

The question actually involved is not whether to have a School of Allied Health Science—programs in the health field already abound in most public institutions of higher learning, the State College of Arkansas is developing plans for a School of Health in cooperation with the Baptist Medical Center, and additional programs and program expansions are recommended in this study at all educational levels in Arkansas—but rather: (1) if there should be a "Model" school capable of offering such leadership, and, (2) is there value to maintaining an ongoing planning group working with the Commission on Coordination of Higher Educational Finance and involving key college, university, community, Medical school, and state agency persons.

The Committee members feel that the proposed cooperative School of Allied Health Sciences involving the University of Arkansas at Little Rock and the University of Arkansas Medical Center will be uniquely equipped to provide the technical, academic, professional (medical and related), and administrative leadership desired and that there is value to the ongoing planning group being involved in this development.

It appears that the planned program involving the State College of Arkansas and the Baptist Medical Center will compliment rather than compete with the proposed cooperative School of Allied Health Sciences. The proposed school would provide for the State College of Arkansas — Baptist Medical Center Program services similar to those provided other institutions of higher learning offering programs in medical related areas.

It appears obvious that some minor duplications in programs will exist in the two institutions, however, these duplications will occur in areas of critical need and should not be viewed as unnecessary or wasteful duplications.

The Committee members believe that the imperative of a cooperative Model School of Allied Health Sciences serving all institutions and agencies of higher education in Arkansas relates to:[3]

A. The need for research into the educational process, uncovering instructional methods and materials best suited to each level of trainee.

B. The need for continuing curriculum design and reassessment in conjunction with advancing medical techniques; development of core curricula; audio-visual materials, video-tapes, films and programmed manuals for distribution to all other interested training institutions.

C. The development of trained faculty, knowledgeable in the new equipment; new team approaches, and trained in appropriate teaching methods.

D. Availability of a center for continuing education of older graduate technicians from throughout the State, capable of implementing:

1. Certificate courses for upgrading skills of key personnel, then able to train others in

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[3] Coggeshall, Dr. Lowell T. and Others—*A Projection of Maryland's Health and Manpower Needs Through the* 1980's, Maryland Council for Higher Education, Baltimore, Maryland, January 1969, p. A36

these techniques following return to the parent institution.

2. Workshops of limited duration, preferably scheduled in various localities about the State, yet incorporating a single faculty team and special program design for maximum educational impact.

3. Career ladder programs incorporating basic education, supervisory techniques and specialty skills culminating in a higher degree or certificate, thus enabling selected health personnel to move higher in the professional status by meeting appropriate educational standards.

E. In liaison with associated hospital, clinic and neighborhood health centers experiment with new programs in the delivery of health services through training programs for technicians and associate professionals explicitly designed to augment the unorthodox clinical program.

F. Demonstrate procedures for more efficient utilization of professional manpower through team procedures utilizing trained technicians and associate professionals. Good systems, maximizing efficiency without sacrifice in the quality of patient care, could serve as valuable models for smaller hospital-education complexes throughout the State.

G. Because of its preeminence, such a Model School of Allied Health Sciences could more effectively recruit new manpower resources; alert public awareness to new health personnel and comprehensive care programs; organize and follow through on grant proposals to Federal, State and private health foundations; and react rapidly to feedback from institutions and communities across the State respective to special needs and unequal distribution of personnel.

H. Trainees would learn technician's skills in relation to complex counter equipment, library facilities, specialized faculty, and sophisticated medical-surgical equipment unavailable at any but the few largest medical complexes in Arkansas.

Any major reduction in the cost of medical services, especially in the public sector, or in the implementation of new comprehensive care services is dependent on effective use of technicians and associate professionals, and thereby multiplication of scarce professional capabilities.

Although the lag time in the training of associate professionals is far less than physicians, the planning of a Model School of Allied Health Sciences should involve considerable study, and the exploration of similar schools of institutions around the country.[4] This kind of task is beyond the scope of this sub-committee, yet unaccepting of postponement "to some future date" the Reviewing Committee recommends to the Advisory and Liaison Committees the approval of the proposed School of Allied Health Sciences in principle and, in addition, recommends and urges the utilization of the present project staff with its existing advisory committees and a committee composed of representatives appointed by the University of Arkansas, as the study groups to cooperatively analyze issues of costs, Federal support, likely change in delivery of services (medical, dental, public health, and mental health), location and most importantly the potential gains accruing to Arkansas health services by proceeding now to establish a Model School of Allied Health Services.[5]

In addition, the Commission on Coordination of Higher Educational Finance, administrative staff,

[4] Ibid., p. A-37

[5] Ibid., p. A-37

and faculty of the University of Arkansas at Little Rock, administrative staff of the University of Arkansas Medical Center and the project staff with its present Advisory Committees should begin immediately to plan the School of Allied Health Services as a consortium linking the State's universities, colleges, schools, hospitals, state agency programs, public health facilities, and other interested institutions or agencies. Funds for the development of the proposed program should be made available from both State and Federal sources.

## PROPOSED DESIGN: MODEL SCHOOL OF ALLIED HEALTH SCIENCES

The University of Arkansas at Little Rock and the University of Arkansas Medical Center, under authority of the Board of Trustees of the University of Arkansas and in cooperation with the Commission on Coordination of Higher Educational Finance and the project staff with its present Advisory Committees, should develop plans for an interdisciplinary school of Allied Health Sciences which would:[6]

1. Cooperate, as education consultants, with all institutions;

2. Whenever possible, and without disturbing their academic independence, utilize existing para-medical programs as basic components in graded series of educational "steps" developed for each of the several health careers; and

3. Coordinate the assignment of students from the participating colleges and other programs in appropriate clinical facilities, preferably on an interdisciplinary team—care basis; provide faculty for clinical supervision.

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[6] Coggeshall, Op.cit., p. A-40

PROPOSED CENTRAL FUNCTION OF THE SCHOOL OF ALLIED HEALTH SCIENCES:[7]

1. Initiate programs of research in education pertinent to the training of health personnel at all levels and educational backgrounds.

2. Develop a wide range of instructional materials (e.g., films, video-tapes, programmed texts) for general distribution.

3. Develop core curricula suitable to the beginning education of students from several health fields; develop flexible, relatively standardized, specialty curricula for use by interested colleges, thus facilitating both horizontal and vertical mobility of students through the ready transferability of college credits.

4. Work in liaison with other groups towards delineation of Arkansas' health manpower needs, especially in relation to: increasing demand for care; new State and local health programs; and, changing patterns in the delivery of services.

5. Help develop in conjunction with the professional societies, new associate professional roles, including clear pathways for career advancement and the clarification of inter-agency issues, such as, minimum qualification and licensing.

6. Develop a wide range of meaningful continuing education programs appropriate to all current personnel.

7. Investigate potential Federal, State and private funding sources: coordinate grant applications.

[7] Coggeshall, Op.cit., p. A-40

8. Maintain communication among both clinical and college members toward the most efficient utilization of faculty, expensive technical equipment, and physical plant; allow institutions with special attributes to specialize in areas of greatest capability, thus serving as the main training center for that field, for the entire consortium.

9. Serve as a center for the training of clinical and basic science faculty in educational methods; facilitate exchange of educational ideas and new approaches among faculty from all participants.

10. Coordinate recruiting efforts for health personnel and explore and develop new manpower resources, including use of indigenous health personnel drawn from and serving the entire state.

The proposed School of Allied Health Sciences should include graduate and undergraduate programs in the allied health sciences currently offered by the University of Arkansas at Little Rock and the University of Arkansas Medical Center and additional programs should be initiated as soon as it is educationally sound and economically feasible to do so.

In addition to the above recommendations, it is felt that the following recommendations for specific program areas, if effectively implemented, will materially reduce the projected personnel deficits for the medical related areas.

## PUBLIC HEALTH

1. The present master's degree program at the University of Arkansas should be expanded as proposed and a new program should eventually be initiated at the University of Arkansas at Little Rock. It is felt that these programs will produce sufficient graduates to meet the State's personnel needs.

## NURSING

1. Presently approved master's degree programs in Nursing to be offered at the University of Arkansas School of Nursing and the State College of Arkansas, should be implemented immediately and expanded to full capacity as rapidly as possible. Additional master's degree programs should not be established in the foreseeable future.

2. The two undergraduate degree (bachelor's degree) programs presently being offered by the University of Arkansas School of Nursing and the State College of Arkansas should be expanded immediately to maximum capacity and consideration should be given to the initiation of an additional program if the proposed expansions fail to produce sufficient personnel to meet the State's needs.

3. Associate degree programs in Nursing at Arkansas A & M College, Arkansas State University, University of Arkansas Medical Center, Southern State College, University of Arkansas at Little Rock, Phillips County Community Junior College, and Westark Community Junior College should be expanded immediately to maximum capacity.

4. The proposed new associate degree programs in Nursing at Arkansas Agricultural, Mechanical and Normal College, and the University of Arkansas should be initiated immediately and expanded to full capacity as rapidly as it is feasible to do so.

5. As additional public Community Junior Colleges are developed, associate degree nursing programs should be initiated in these institutions if available hospital facilities and services in the area are adequate for support of such programs.

6. Additional Licensed Practical Nursing Programs should not be established unless the need

for such programs can be thoroughly documented.

## PHYSICAL THERAPY

1. Proposed new bachelor's degree programs in Physical Therapy at the State College of Arkansas and the University of Arkansas Medical Center should be implemented immediately and expanded to capacity as soon as possible. No programs in Physical Therapy are presently offered in the State, however, the two proposed programs should supply the manpower needs projected for 1977.

2. The proposed new vocational program for Therapist and Assistants at Westark Community Junior College should be implemented immediately and additional programs should be planned for Phillips County Community Junior College and Arkansas Agricultural, Mechanical and Normal College. The State currently does not have programs in this area and the projected manpower needs could be met through these programs.

## NUTRITION

1. The present master's degree program in Nutrition at the University of Arkansas should be expanded as proposed and plans should be made to initiate an additional program at another institution as the projected manpower needs will not be met through the proposed program expansion.

2. The bachelor's degree program in Nutrition at the University of Arkansas should be expanded as proposed and the proposed new program at Henderson State College should be initiated as soon as possible.

3. The proposed new vocational program in Dietary Supervision Internship at the Univer-

sity of Arkansas Medical Center should be implemented as soon as it is feasible to do so.

## LABORATORY TECHNOLOGY

1. The University of Arkansas at Little Rock and Ouachita Baptist University should expand their present programs in Laboratory Technology to the extent necessary to meet the State's projected manpower needs.

2. The new bachelor's degree program in Medical Technology proposed by Arkansas State University should be implemented as proposed.

3. Vocational and technical level programs for the training of Laboratory Assistants and Aides are currently not available in the State. Phillips County Community Junior College, Westark Community Junior College, and Arkansas Agricultural, Mechanical and Normal College should study the feasibility of initiating programs in this area.

## OCCUPATIONAL THERAPY

1. The bachelor's degree program in Occupational Therapy proposed by the Medical Center of the University of Arkansas should be initiated immediately and expanded to full capacity as soon as possible. Programs in this area are currently not available in the State.

## MEDICAL RECORDS SCIENCE

1. The State does not have a bachelor's degree program in Medical Records Science. In order to reduce or eliminate the relatively large personnel deficit projected for 1977, planning should begin immediately for the development of at least two programs in this area. The University of Arkansas at Little Rock and the University of Arkansas Medical Center should have the responsibility for developing one of these programs as a part of the pro-

posed School of Allied Health Sciences.

2. The associate degree program in Medical Record Science proposed by Westark Community Junior College should be initiated at an early date and Phillips County Community Junior College should study the feasibility of establishing a program in this area.

## SANITARY ENGINEERING

1. Present programs will produce sufficient graduates to meet the State's needs. No new programs should be established in the foreseeable future.

## PHARMACY

1. If current trends continue, there will be a critical shortage of pharmacists in Arkansas in 1977. The proposed expansion of the University of Arkansas School of Pharmacy should be implemented immediately and steps should be taken to expand enrollment in the School of Pharmacy to full capacity.

2. The University of Arkansas School of Pharmacy should study the possibility of training and utilization of pharmacy technicians. A joint committee composed of representatives from the American Association of Colleges of Pharmacy, the National Associations of Boards of Pharmacy, the American Pharmaceutical Association, and the American Society of Hospital Pharmacists is currently conducting a study of all aspects of pharmacy technicians. At the completion of this study, the University of Arkansas School of Pharmacy should be ready to implement recommendations applicable to meeting the pharmacy manpower needs in Arkansas.

3. The State should make available to the University of Arkansas School of Pharmacy funds

to permit the establishment of programs which will supply the manpower necessary for the anticipated needs of drug distribution and drug information and control.

4. The University of Arkansas School of Pharmacy should be expanded to include a Hospital Pharmacy Internship Program.

## BIOCHEMISTRY

1. The proposed expansion of the bachelor's degree program in Biochemistry at the University of Arkansas should be implemented. This expanded program will produce sufficient graduates to meet the State's manpower needs and additional programs should not be implemented in the foreseeable future.

## PSYCHIATRIC TECHNOLOGY

1. Present vocational programs in Psychiatric Technology will provide sufficient graduates to meet the State's projected manpower needs and additional programs should not be planned for the immediate future. However, these programs should be expanded to associate degree programs.

## X-RAY TECHNOLOGY

1. Present vocational programs in X-Ray Technology will provide sufficient graduates to meet the State's projected manpower needs and additional programs should not be planned for the immediate future. However, these programs should be expanded to the associate degree level.

## DENTAL TECHNOLOGY

1. The proposed vocational program for Dental Assistants at Westark Community Junior Col-

lege should be implemented immediately and plans should be initiated to make this program an associate degree program. It is also recommended that a minimum of two new associate degree programs be developed. These programs should be located at either the University of Arkansas Medical Center, University of Arkansas at Little Rock, Phillips County Community Junior College, or Arkansas Agricultural, Mechanical and Normal College. It is felt that, with other factors being equal, these programs should be located in areas having a concentration of dentists sufficient to provide laboratory experience for students enrolled in such programs.

## RECOMMENDATIONS FOR BEHAVIORAL, EDUCATIONAL AND REHABILITATIVE PROGRAMS

It was mentioned previously in this report that some of the most glaring manpower deficits in the health and adaptive behavioral problem service areas exist in those areas dependent on the production of behavioral, educational and rehabilitative programs. Most of the present and projected personnel deficits are of such magnitude it is highly improbable that they can be eliminated in the immediate future. However, it is felt that the following recommendations, if effectively implemented, will materially reduce critical deficits in these areas and provide a mechanism for the eventual production of sufficient personnel to meet the State's manpower needs.

### EDUCATIONAL PSYCHOLOGY

1. The doctoral degree program in Educational Psychology proposed by the University of Arkansas should be initiated immediately.

2. The proposed new master's degree programs at Arkansas State University and State College of Arkansas should be initiated as soon as feasible and these programs, along with ex-

isting master's degree programs in other institutions, should be expanded to planned capacity.

## GUIDANCE AND COUNSELING

1. All institutions offering graduate level programs in Guidance and Counseling should increase their efforts to recruit students for these programs.

2. The proposals to expand existing master's degree programs in Guidance and Counseling at the State College of Arkansas, Arkansas State University, and the University of Arkansas should be implemented as proposed.

3. The University of Arkansas should proceed immediately to implement its proposed expansion of the existing specialist degree program in Guidance and Counseling.

4. Southern State College should expand its existing cooperative program with the University of Arkansas and Arkansas Agricultural, Mechanical and Normal College should explore the possibility of establishing a similar cooperative program with the University of Arkansas.

5. The new specialist degree program in Guidance and Counseling at Arkansas State University should be implemented as proposed.

6. The master's degree program in Rehabilitative Counseling at Arkansas State University should be expanded as proposed and the proposed new programs at the University of Arkansas and the State College of Arkansas should be implemented as soon as it is feasible to do so.

## SOCIAL WORK

1. The master's degree program in Social Work, offered by the University of Arkansas Graduate School of Social Work in Little Rock, should be expanded immediately from its present capacity of 60 students to a capacity of 250 students by 1977.

2. Arkansas State University should consider the feasibility of establishing a master's degree program in Social Work prior to its proposed initiation date. (Proposed after 1980)

3. The University of Arkansas should expand its bachelor's degree program in Social Work as proposed.

4. Arkansas Agricultural, Mechanical and Normal College, Henderson State College, Arkansas State University, and Southern State College should initiate proposed new bachelor's degree programs in Social Work as soon as it is feasible to do so.

## SPEECH THERAPY

1. The University of Arkansas should proceed immediately with its proposal to expand its master's degree program in Speech Therapy.

2. Arkansas State University, State College of Arkansas, and Henderson State College should explore the feasibility of establishing a master's degree program in Speech Therapy. In the event any of these institutions feel that it is possible for them to initiate such a program this should be done at the earliest possible date.

## SPECIAL EDUCATION

In the event all proposals for the expansion of existing and initiation of new programs at each degree level in special education were implemented, Arkansas would still have a projected deficit in 1977 of over 4,500 persons trained to provide services in the various areas of special education.

A deficit of this magnitude would be ample reason for concern in the most populous states — for states with a population as small as Arkansas' it assumes enormous proportions.

The Committee feels that the ramifications of such a large deficit call for the planning of additional programs to train personnel for service in most areas of special education and that the planning and assistance needed in developing these programs could possibly be one of the most important continuing functions of the present project, or for a new project designed specifically to assist the State in providing pilot training programs in one or more areas of special education.

It is also felt that a program involving both State and Federal financing may be the only possible solution to the serious manpower problem faced by the State. There is ample reason to believe that such a program can be developed as a cooperative effort involving the Commission on Coordination of Higher Educational Finance, the project staff and institutions and agencies of higher education. It does not appear beyond the realm of possibility that a coordinated approach, similar in many aspects to the Model School of Allied Health Sciences discussed under Medical Related Programs, could be utilized to reduce the serious manpower deficits projected for many areas of special education.

The Committee offers the following recommendations as a plan for reducing present and projected deficits in special education.

A. Learning Disabilities

(1) Proposed new master's degree programs in, Special Education — Learning Disabili-

ties, at Arkansas State University and the University of Arkansas should be implemented immediately and special effort should be placed on expanding these programs beyond the enrollment currently planned for these programs.

(2) Due to the large personnel deficit projected for 1977 (1239) the State College of Arkansas and Henderson State College should study the feasibility of establishing master's degree programs in this area and, if feasible, to initiate these programs as soon as possible.

B. Educable Mentally Retarded

(1) All existing, Educable Mentally Retarded, programs at the master's degree level should be expanded to maximum capacity immediately.

(2) New, Educable Mentally Retarded, programs at the master's degree level proposed by the University of Arkansas should be initiated as planned.

(3) Arkansas Agricultural, Mechanical and Normal College should not establish its own proposed program at the master's degree level but should study the feasibility of establishing a cooperative program with some other public college or university within the State.

C. Trainable Mentally Retarded

(1) The existing master's degree programs, Trainable Mentally Retarded, at Arkansas State University should be expanded to full capacity as soon as possible and the proposed new master's degree program at the University of Arkansas should be implemented immediately.

(2) The State College of Arkansas should study the feasibility of establishing a master's degree program in this area either as a separate program or as a cooperative program with the University of Arkansas or Arkansas State University.

D. Kindergarten-Mentally Retarded

(1) The proposed Master's degree program, Kindergarten Mentally Retarded, at the University of Arkansas should be implemented immediately.

(2) Arkansas State University should explore the possibility of establishing a similar program within the near future.

E. Physically Handicapped

(1) Arkansas State University should implement its proposed master's degree program, Physical Handicapped, as planned and the program should be expanded to full capacity as rapidly as possible.

(2) The State College of Arkansas should plan to expand its master's degree program.

F. Blind

(1) The University of Arkansas should initiate the proposed master's degree program, Special Education-Blind, as soon as possible and expand this program to capacity as rapidly as resources permit.

G. Deaf

(1) Arkansas State University should implement its proposed master's degree program, Special Education-Deaf, and expand this program to full capacity within the near future.

H. Attendants-Mentally Retarded

(1) The proposed vocational level program Attendants-Mentally Retarded, at Westark Community Junior College should be implemented in the immediate future and expanded to full capacity at an early date.

(2) Phillips County Community Junior College should study the possibility of establishing a similar program in the near future.

## GENERAL PSYCHOLOGY

1. The doctoral degree program in General Psychology at the University of Arkansas should be expanded as proposed.

2. The new master's degree program in Psychology at Arkansas State University should be implemented as proposed.

3. The University of Arkansas should expand its master's degree program in Psychology within the near future.

## SPEECH PATHOLOGY

1. The State does not have a doctoral program in Speech Pathology and none of the institutions proposed a program. However, at least one program should be planned in order to meet the State's manpower needs.

## ADMINISTRATION AND SUPERVISION

1. The new specialist degree program in Administration and Supervision at Arkansas State University should be implemented as proposed. This program and existing programs at

other institutions should be sufficient for the State's needs.

## CURRICULUM AND INSTRUCTION

1. The specialist degree program in Curriculum and Instruction at the University of Arkansas should be expanded as proposed.
2. Arkansas State University should implement the proposed new specialist degree program in Curriculum and Instruction at an early date.

## RECREATIONAL THERAPY

1. The proposed bachelor's degree program in Recreational Therapy at Arkansas State University should be implemented as proposed and expanded to full capacity as rapidly as it is feasible to do so.

## INDUSTRIAL ARTS

1. The master's degree program in Industrial Arts at the University of Arkansas should be expanded as proposed.
2. The State does not have a bachelor's degree program in Arts and Crafts. Plans should be made to establish at least one such program.

## LIBRARY SERVICE

1. The new master's degree program in Library Service at Arkansas State University should be implemented as proposed.
2. Westark and Phillips County Community Junior Colleges should explore the possibility of establishing associate degree programs for library assistants and vocational level programs

for library aides.

It is abundantly clear that the recommendations of this report will not eliminate all the personnel deficits projected for the health and adaptive behavioral problem service areas in Arkansas and that the implementation of these recommendations will involve considerable time and effort on the part of the State's institutions and agencies of higher education. In addition, the State will be required to increase materially its financial support to these institutions and agencies if any real progress is made toward the initiation and/or expansion of programs so vitally necessary for the production of personnel to meet projected manpower needs.

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Mr. Rupert Sims
Dr. W. E. Potts

## REHABILITATION POSITIONS

Mr. Robert Leslie, Chairman
Mr. L. H. Autry, Co-Chairman
Dr. Billy Baker, Co-Chairman
Dr. Cecil Shuffield
Mrs. Elsie Butler
Mr. Graham T. Nixon
Dr. R. M. Roelfs
Dr. B. S. Swindoll
Mr. John Baw

## MEDICAL AND RELATED POSITIONS

Mr. Storm Whaley, Chairman
Mrs. Elizabeth Alstadt, Co-Chairman
Mrs. Nell Balkman, Co-Chairman
Dr. M. Olin Cook
Mr. Charles E. Acuff
Dr. Ben Saltzman
Dr. Marshall Steel
Mrs. Ursula Hazelwood
Mrs. Margaret Deal
Mr. Roger Warner

## MEMBERS OF THE INTER-DEPARTMENTAL COMMITTEES

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Mrs. Elizabeth Alstadt, Coordinator
Mental Retardation Planning Project

Dr. R. C. Ramsey, Jr., Director
Division of Maternal and Child Health

Dr. Bryant S. Swindoll, Director
Division of Chronic Disease Control

Dr. W. E. Potts, Director
Bureau of Laboratories

Mr. C. H. French, Assistant Director
Bureau of Sanitary Engineering

Mr. Eugene Spratt, Director
Division of Hospitals and Nursing Homes

Mrs. Flossie McElmurry
Personnel Officer

Mrs. Ursula Hazelwood, Supervisor
Practical Nurse Training

Mr. Jim Albright, Supervisor
Physical Education

Mr. LeRoy Pennington
Director of Guidance Services

### DEPARTMENT OF EDUCATION

Mr. Cecil E. Shuffield
Director of Supervision

Mr. L. H. Autry, Director
Rehabilitation Services for the Blind

Mr. Tom Hicks, Director
Special Education

Mr. Robert C. Hope, Supervisor
Arkansas Rehabilitation Service

Mr. C. Robert Leslie
Director of Client Services
Hot Springs Rehabilitation Center

Mr. Frank W. Cannaday
Supervisor
Research and Statistics

Mr. Earl Willis
Supervisor of Instruction

Mr. Austin Hanner
Supervisor of Instruction

Miss Frances Rudd
Director of Home Economics

Mrs. Ruth Powell, Director
School Lunch & Milk Programs

Mr. Marvin Salmon
Supervisor of Instruction

### DEPARTMENT OF PUBLIC WELFARE

Mr. Fred E. Henne, Director
Administrative Services

Mrs. Ardelia P. Womack, Director
Family Services

Mr. E. P Moulton
Administrative Assistant, CCD

Mrs. Janet Knight, Director
Child Welfare

Mr. John Baw, Director
Work and Training

Mr. Ivy Johnson, Director
Surplus Commodity

Mrs. Margaret Deal, Chief
Medical Services

Miss Julia Westfall, Director
Staff Development

Mrs. Mary Eddy Thomas
Personnel Director

FORM MP—III-A

# GENERAL FORM TO SUPPLEMENT PROPOSALS FOR EXPANSION OF AN EXISTING PROGRAM OR INITIATION OF NEW PROGRAMS IN THE HEALTH OR RELATED AREAS

This form is to be completed once and only once by any institution considering initiating a new program or expanding an existing program in the Health or Related Areas. The form is to be completed in duplicate and one copy is to be returned to the Commission on Coordination of Higher Educational Finance, Manpower Project: Health and Related Services, 439 National Old Line Building, Little Rock, Arkansas, 72201.

The items included in the general form are self-explanatory. Each was designed to obtain general information regarding an institution's history and plans. This information is to supplement information provided on other forms regarding expansion of existing programs or initiating new programs in the Health or Related Service Area.

# FORM M.P.—III-A

## (GENERAL INFORMATION)

### A. INSTITUTIONAL PHILOSOPHY

Briefly state the institutional philosophy regarding the purposes and functions of the institution and note any recent or planned changes in the educational task of the institution.

### B. STUDENTS

1.0 Enrollment Trends — Please state the fall 1966 and 1967 enrollment (full-time equivalent of 15 semester hours for undergraduate students and 12 for graduate students) for the institution as a whole, and according to the subdivisions listed. Also, list your projected enrollments according to the subdivisions listed.

| | 1966-67 | 1967-68 | 1970-71 | 1975-76 |
|---|---|---|---|---|
| Two-year programs | | | | |
| Undergraduate (Regular Baccalaureate) | | | | |
| Graduate | | | | |
| Master's | | | | |
| Specialist | | | | |
| Doctoral | | | | |

2.0 Reflect the current and planned student-faculty ratio for the entire institution:

| | Student - Faculty Ratio | |
|---|---|---|
| | Undergraduate | Graduate |
| 1967-68 | | |
| 1968-69 | | |
| 1969-70 | | |
| 1970-71 | | |
| 1975-76 | | |

3.0 Please state the institution's admission requirements and policies at the undergraduate and graduate levels. Please include tests required, scores on the specific tests required, the number of students applying for admission during the last academic year and the number of students admitted at each level.

Yes No

4.0 Student Services — Does your institution provide a freshman orientation program? ________

5.0 Is there a formally organized counseling program for the student body? ________

5.1 If yes, the counseling is conducted under which department? ________

5.2 How many staff members assigned full-time? ________

Half-time? ________

Less than half-time? ________

6.0 Student Health — Is there a formally organized student health center on campus? ________

6.1 If yes, percentage of time daily available to students is? ________

Yes No

6.2 Is a physician assigned full time? ______

Half-time? ______

Less than half-time? ______

6.3 The number of RNs assigned full-time? ______

6.4 Number of beds available for temporary confinement of students is? ______

7.0 Type of Financial Assistance — Available to Students in 1968-69: (Please check appropriate column(s).)

| Loans | | Scholarships | | Others | |
|---|---|---|---|---|---|
| Tuition only | ______ | Tuition only | ______ | Assistantships | ______ |
| Undergraduates | ______ | Undergraduates | ______ | Grants & Aides | ______ |
| In State | ______ | In-State | ______ | Fellowships | ______ |
| Out-of-State | ______ | Out-of-State | ______ | Teaching Assistantships | ______ |

FORM M. P.—III-B

# PROPOSAL TO INITIATE A PROGRAM IN A HEALTH OR RELATED AREA

This form is to be completed for each new program which this institution desires to consider initiating in the health or related areas.

A new program is defined as offering a course of study in an entirely new field or at a new level for the institution, a new level would be considered offering a master's degree when only a bachelor's degree had been offered etc., or offering a major when only a minor had been offered previously, or offering a completely new course of study.

This form will be supplemented by the general information form supplied by each institution. Please complete this form in duplicate for each new program involved and return one copy to the Commission on Coordination of Higher Educational Finance, Manpower Project: Health and Related Services, 439 National Old Line Building, Little Rock, Arkansas, 72201. Each item is self-explanatory and the information requested is to be used by professionals from the program area concerned in helping recommend to the Commission on Coordination of Higher Educational Finance the best possible locations to establish new programs in order to effectively and efficiently provide educational opportunities for persons in the State.

## FORM M.P. — III-B

## (TO INITIATE PROGRAM)

Date Completed ____________________

### A. GENERAL

1.0 Name of institution ____________________

2.0 Program to be initiated ____________________

3.0 Level of program ____________________

4.0 Name of person completing form ____________________

5.0 Name of person administratively responsible for program (to be), if known ____________________

____________________

6.0 Professional organization that will accredit program ____________________

____________________

7.0 Date of expected accreditation of program ____________________

8.0 The number of declared majors that this program is being designed to accommodate is?

____________________

9.0 The maximum number of yearly graduates expected from this program in full operation will be? ____________________

10.0 This maximum enrollment will be reached by (Date) ____________________

11.0 Indicate rate of growth of enrollment to obtain maximum and the student-faculty ratio:

| | Date | Enrollment | S-F Ratio |
|---|---|---|---|
| 1st year initiation | | | |
| 2nd year initiation | | | |
| 3rd year initiation | | | |
| 4th year initiation | | | |
| 5th year initiation | | | |

## B. RELATED PROGRAMS

1.0 Indicate the on-going programs that directly support the program under consideration:

| Name of Program | Level | Accrediting Agency |
|---|---|---|
| | | |
| | | |
| | | |

2.0 Indicate any proposed changes in curriculum of supportive programs:

3.0 On the course of study outline below, please indicate, on a yearly basis, a theoretical program that the student would complete at this institution as the proposed curriculum is established. Also, indicate the proposed frequency of offering of courses:

### PROGRAM OUTLINE

Program Concerned ______________________

| | Freshman* | | | Sophomore | |
|---|---|---|---|---|---|
| Course | Hrs. | Offered** | Course | Hrs. | Offered |
| | | | | | |

| | Junior | | | Senior | |
|---|---|---|---|---|---|
| Course | Hrs. | Offered | Course | Hrs. | Offered |
| | | | | | |

*If graduate program, change from Freshman, etc. to appropriate level.
**Indicate frequency of offering with (F) Fall, (S) Spring, and (Su) Summer.

## C. FACULTY

1.0 The number of faculty needed, by level, to conduct the proposed program for a projected five year period by years is:

| | Professor | Assoc. Prof. | Asst. Prof. | Lect. |
|---|---|---|---|---|
| 1st year initiation | | | | |
| 2nd year initiation | | | | |
| 3rd year initiation | | | | |
| 4th year initiation | | | | |
| 5th year initiation | | | | |

## D. STUDENTS

1.0 For prospective majors, what will be the departmental admission requirements to the program? Be specific, citing test required and minimum acceptance scores, grade point average, and faculty recommendation requirement, etc. State function of departmental committee in screening prospective majors.

2.0 What will constitute academic and/or professional grounds for dismissing major students?

3.0 State any limitations which will be imposed to restrict the numbers of majors in this program and any deviations from standards established in D-1.0 that will occur with applicants.

4.0 Will there be a departmental job 'placement service? Yes No

__________

4.1 If yes, what geographic area will it cover?

5.0 Will there be a follow-up on graduates?

Yes No

____________

6.0 How will students for this program be recruited?

7.0 Will there be a formal departmental counseling program for prospective majors?

Yes No

____________

7.1 For enrolled majors? ____________

8.0 Will the department have financial assistance available for majoring students when the program is activated?

| | Yes | No | Number | Maximum Yearly Amt. for Each |
|---|---|---|---|---|
| Loans | | | | |
| Scholarships | | | | |
| Assistantships | | | | |
| Fellowships | | | | |

## E. FACILITIES

1.0 Are facilities (classrooms and laboratories, where applicable) adequate for the proposed new program? If not, state the deficiency.

## F. REGIONAL RESOURCES

1.0 Will this program require on the job type facilities for internship, practicum, etc?

Yes No

__________

2.0 Are these facilities available on campus or associated with campus site? Yes No

__________

3.0 Will regional off-campus facilities be available? __________

3.1 If yes, are cooperative arrangements for their use in existence? __________

3.2 Where are the facilities located?

Name ______________________________

City ______________________________

Distance from campus (miles) ____________________

3.3 If no, would it be possible to establish satisfactory working arrangements with the needed off-campus facilities? __________

3.31 Where ______________________________

Name ______________________________

City ______________________________

Distance from campus (miles) ____________________

## G. LIBRARY AND INSTRUCTIONAL MATERIALS

1.0 Indicate, utilizing a standard decimal system, the library holdings (books, periodicals, etc.) that are available for use in the major areas concerned for this program and pertinent supportive areas. Include number of titles and volumes. If a separate professional library is maintained within the department, please differentiate between holdings available in the professional library and in the main library. (Attach necessary additional sheets.)

2.0 Submit a comprehensive statement covering the availability, nature and type of instructional materials (such as tapes, audio-visual aides, records, etc.) that are available to students and faculty for use with this program.

3

FORM M. P. — III - C

# PROPOSAL TO EXPAND AN EXISTING PROGRAM IN A HEALTH OR RELATED AREA

This form is to be completed for each existing program that your institution desires to consider expanding in a health or related area.

Expansion of a program is intended to mean simply expanding the facilities and offerings in a program that exists in such a way as to increase the number of students enrolled in and graduating from the program.

This form will be supplemented by the general information form supplied by each institution. Please complete this form in duplicate for each program involved and return one copy to the Commission on Coordination of Higher Educational Finance, Manpower Project: Health and Related Services, 439 National Old Line Building, Little Rock, Arkansas 72201. Each item is self-explanatory and the information requested is to be used by professionals from the academic area concerned in helping recommend to the Commission on Coordination of Higher Educational Finance the best possible locations for expanding existing programs in order to effectively and efficiently provide educational opportunities for persons in the State.

## FORM M. P. — III - C

## (TO EXPAND PROGRAM)

Date Completed ______________________

## A. GENERAL

1.0 Name of Institution ______________________

2.0 Program to be expanded ______________________

3.0 Degree level of program ______________________

4.0 Name of person completing form ______________________

5.0 Name of person administratively responsible for program ______________________

______________________

6.0 Professional organization accrediting program ______________________

______________________

7.0 Date of accreditation or most recent reaccreditation (If accreditation was not obtained, state factors prohibiting) ______________________

8.0 Current (1968-69) number of students enrolled as declared majors ________

9.0 This program is to expand from current enrollment to a maximum enrollment of ________

10.0 Indicate anticipated rate of growth of enrollment to obtain the maximum and the anticipated student-faculty ratio for each of the years indicated:

| | Date | Enrollment | S-F Ratio |
|---|---|---|---|
| 1st year expansion | | | |
| 2nd year expansion | | | |

3rd year expansion ______________________________

4th year expansion ______________________________

5th year expansion ______________________________

11.0 The number of graduates per year under maximum ennrollment is expected to be ________

12.0 Describe briefly the procedures employed in adding or discontinuing courses in this program. Indicate the extent of involvement of the faculty in this process.

13.0 Indicate the methods and procedures used in determining the effectiveness of this program in preparing graduates to fully discharge the responsibilities of the profession involved. Include person or persons conducting the study, date of last study and results. If this does not apply, indicate no formal procedures employed.

| | Yes | No |
|---|---|---|
| 13.1 Formal procedures employed? | | |

13.2 If yes, please respond:

14.0 On the course of study outline below, please indicate on a yearly basis a theoretical program that the student would complete at this institution as the current curriculum is established. Indicate any course changes that are intended to be effected. Also, indicate the frequency of offering of courses. When was the latest curriculum study completed which produced changes? What were those changes and when were they effective?

## PROGRAM OUTLINE

Program Concerned ________________________________________

| | | | | | |
|---|---|---|---|---|---|
| | Freshman* | | | Sophomore | |
| Course | Hrs. | Offered** | Course | Hrs. | Offered |

| | | | | | |
|---|---|---|---|---|---|
| | Junior | | | Senior | |
| Course | Hrs. | Offered | Course | Hrs. | Offered |

*If graduate program, change from Freshman, etc., to appropriate level.

**Indicate frequency of offering with (F) Fall, (S) Spring or (Su) Summer.

11.1 Anticipated course changes with proposed dates of changes:

11.2 Last curriculum study completed Date (Year) ____________

11.3 Changes resulting from curriculum study were:

### B. RELATED PROGRAMS:

1.0 Indicate the number of on-going programs that directly support the program under consideration:

| Name of Program | Level | Accrediting Agency |
|---|---|---|
| | | |
| | | |

2.0 Indicate any planned programs that would directly support the program under consideration:

| Name of Program | Level | Accrediting Agency |
|---|---|---|
| | | |
| | | |

3.0 Indicate any proposed changes in curriculum of supportive programs:

## C. FACULTY

1.0 The number of additional faculty, by year and level, needed to expand this program each year until maximum enrollment is reached is:

| | Professors | Assoc. Prof. | Asst. Prof. | Lect. |
|---|---|---|---|---|
| 1st year expansion | | | | |
| 2nd year expansion | | | | |
| 3rd year expansion | | | | |
| 4th year expansion | | | | |
| 5th year expansion | | | | |

2.0 Attach a faculty data sheet for each faculty member that is currently on your department faculty. Include the following points:

Name

Rank

Level

Appointment Date

Earned Degrees

Level of teaching experience by years

Current professional and academic association memberships.

Star (*) those to show recent attendance at meetings or participation.

Publications

Research (Budgeted and/or personal), special study, or writing currently in progress but unfinished.

## D. STUDENTS

1.0 If the department has admission standards for students entering the program that are different from the admission standards for the institution as a whole, please describe. Be specific, citing test required and minimum acceptance scores, grade point average, and faculty recommendation requirement, etc. State function of departmental committee in screening prospective majors:

2.0 State any limitation imposed to restrict number of majors admitted to this program and any deviations from standards established in D-1.0 above that occur with applicants:

3.0 What constitutes academic and/or professional grounds for dismissing a majoring student from the department?

4.0 Indicate a yearly average number of applications for major and yearly average number of acceptances:

4.1 Yearly average number applications ____________

4.2 Yearly average number accepted ____________

5.0 State any planned modifications of procedures outlined in D-1.0:

6.0 State the average percentage of declared majors that have selected to leave your program prior to completing the full program. Indicate the most common identifiable causes; such as difficulty with department courses; required general educational courses, especially science and related courses, and mathematics and related courses, etc.:

7.0 What percent of graduates were successful in securing positions appropriate to their preparation in this program over the last five years? ____________

8.0 For the expanded program with an increased number of students, how will the additional students be recruited?

9.0 Does the department have financial assistance available for students?

| | Yes | No | Number | Average Yearly Amt. Each |
|---|---|---|---|---|
| Loans | | | | |
| Scholarships | | | | |
| Fellowships | | | | |
| Assistantships | | | | |

## E. FACILITIES:

1.0 Are facilities (classrooms and laboratories, where applicable) adequate for the proposed expansion? If not, state deficiency.

## F. REGIONAL RESOURCES

| | Yes | No |
|---|---|---|
| 1.0 Does this program require on the job type facilities for internship, practicum, etc? | | |
| 2.0 Are these facilities available on campusor associated with the campus site? | | |
| 3.0 Are regional off-campus facilities available? | | |
| 3.1 If yes, are cooperative arrangements for their use in existence? | | |

3.2 Where are the facilities located?

Name ______________________________

City ______________________________

Distance from campus (miles) ________________

3.3 If no, would it be possible to establish satisfactory working arrangements with the needed off-campus facilities? Yes No ____________

3.31 Where ________________________________

Name ________________________________

City ________________________________

Distance from campus (miles) ________________

## G. LIBRARY AND INSTRUCTIONAL MATERIALS

1.0 Please submit a comprehensive statement covering the availability, nature and type of instructional materials (such as tapes, audio-visual aides, records, etc.) that are available to students and faculty for use with this program:

1.1 Briefly assess the student and faculty use of these learning materials and indicate any future plans that the department may have to promote the increased use of these materials:

2.0 Indicate, utilizing a standard decimal system, the library holdings (books, periodicals, etc.) that are available for use in the major areas concerned for this program and pertinent supportive areas. Include number of titles and volumes. If a separate professional library is maintained within the department, please differentiate between holdings available in the professional library and in the main library. (Attach the additional necessary sheets).

FORM M-P2-20.0

Reference:————————

(Form M-P2-10.0)

## INDIVIDUAL PROGRAM INVENTORY

1.0 Name of Institution ________________________________

2.0 Title of Program ________________________________

3.0 Person completing this form ________________________________

4.0 Person administratively responsible for this program ________________________________

________________________________

5.0 Level of Program (i.e. Doctoral, Master's, Baccalaureate, Associate, pre-professional, others)

________________________________

6.0 Name of professional association certifying this program (Professional or accrediting, the most specific) ________________________________

________________________________

7.0 Year program was initiated ________________________________

8.0 Length of program (check one)

| | |
|---|---|
| 8.1 1 year ____________ | 8.4 4 years ____________ |
| 8.2 2 years ____________ | 8.5 1 year graduate ____________ |
| 8.3 3 years ____________ | 8.6 2 year graduate ____________ |

8.7 Other ____________

9.0 Location

9.1 On campus ______ (Other than extension courses and branch campuses)

9.2 Other ________________________________

## 10.0 Enrollment

10.1 During the past five years, the number of students enrolled during the fall semester in this program was:

| Year | As a Major | TO BE USED FOR GRADUATE PROGRAMS ONLY | |
|---|---|---|---|
| | | As a Minor (Not reported as a major for another program) | Number duplicated (No. reported on other form as minor) |
| 1966-67 | | | |
| 1965-66 | | | |
| 1964-65 | | | |
| 1963-64 | | | |
| 1962-63 | | | |
| (Current) 1967-68 | | | |

## 11.0 Students completing program

11.1 During the past five years, the number of students graduating or completing this program was:

| Year | As a Major | TO BE USED FOR GRADUATE PROGRAMS ONLY | |
|---|---|---|---|
| | | As a Minor (Not reported as a major for another program) | Number duplicated (No. reported on other form as minor) |
| 1966-67 | | | |
| 1965-66 | | | |
| 1964-65 | | | |
| 1963-64 | | | |
| 1962-63 | | | |
| (Estimate) 1967-68 | | | |

## 12.0 Program Capacity

12.1 The maximum current student capacity for the faculty and facilities for this program is ______________________________

12.2 Please indicate the student-faculty ratio used regarding 12.1 ______________________________

______________________________

12.3 The single factor most limiting current student enrollment is: (If more than one factor is checked, indicate the one most limiting factor with an asterisk)

Facilities ______________

Faculty: Availability ______________

Professional qualifications of present ______________

Student availability ______________

Other (specify) ______________

## 13.0 Faculty assigned to this program: (If this section does not apply to the program under consideration other than pre-professional programs, omit and please explain)

| Last | Name | Initial | Rank | Highest Earning Degree Appropriate to this Program | % of Time Assigned to this program | |
|---|---|---|---|---|---|---|
| | | | | | Academ. Year | Sum. Term |
| | | | | | | |
| | | | | | | |
| | | | | | | |

| Name<br>Last Initial | Rank | Highest Earning Degree Appropriate to this Program | % of Time Assigned to this Program | |
|---|---|---|---|---|
| | | | Academ. Year | Sum. Term |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
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| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

14.0 Federal Support

14.1 Does this program receive federal support for operational purposes? Yes______ No______

14.2 If so, to what extent? (Percentage) ______________________

15.0. Planned Expansion

15.1 Does this institution plan to expand this program within the next three years? Yes______ No______

15.2. If yes, describe in detail. (Use attached Proposed Program Expansion Sheet)

16.0. Regardless of plans to expand, should an effort to expand this program be initiated, what would be the major problems encountered? Please be specific. (Use attached sheet for this also)